Supplement to the Limb Salvage or Early Amputation Evidence-Based Clinical Practice Guideline

e-Appendix 1

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This supplementary material has been provided by the authors to give readers additional information about their work.

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Quality Evaluations

Study	Representative Population	Reason for Follow Up Loss	Prognostic Factor Measured	Outcome Measurement	Confounders	Appropriate Statistical Analysis	Strength
MacKenzie, E. J., 2006	●	●	●	●	●	◑	High Quality
O'Toole, R. V., 2008	●	●	●	●	●	◑	High Quality
Allami, M., 2017	●	●	●	●	◑	○	Moderate Quality
Archer, K. R., 2010	●	●	●	◑	●	◑	Moderate Quality
Bennett, P. M., 2017	●	●	●	●	◑	○	Moderate Quality
Bosse, M. J., 2005	●	●	●	●	◑	○	Moderate Quality
Castillo, R. C., 2008	●	○	●	●	●	◑	Moderate Quality
Ly, T. V., 2008	●	●	●	●	○	◑	Moderate Quality
MacKenzie, E. J., 2004	●	◑	●	●	●	○	Moderate Quality
MacKenzie, E. J., 2005	●	◑	●	●	●	○	Moderate Quality

Study	Representative Population	Reason for Follow Up Loss	Prognostic Factor Measured	Outcome Measurement	Confounders	Appropriate Statistical Analysis	Strength
Masoumi, M., 2014	●	●	◑	●	●	◑	Moderate Quality
Pezzin, L. E., 2000	●	●	◑	●	◑	●	Moderate Quality
Almassi, F., 2010	●	◑	●	●	○	○	Low Quality
Asensio, J. A., 2006	●	●	◑	◑	◑	○	Low Quality
Aydemir, K., 2017	●	●	◑	◑	◑	◑	Low Quality
Bennett, P. M., 2018	●	●	◑	●	○	○	Low Quality
Blair, J. A., 2014	●	●	◑	◑	◑	◑	Low Quality
Bosse, M. J., 2002	●	○	●	●	●	○	Low Quality
Burns, T. C., 2012	●	●	◑	◑	○	◑	Low Quality
Doucet, J. J., 2011	●	●	◑	◑	◑	○	Low Quality
Dickens, J. F., 2013	●	●	◑	◑	◑	◑	Low Quality
Ellington, J. K., 2013	●	○	●	●	○	◑	Low Quality
Gailey, R., 2010	●	●	◑	●	◑	○	Low Quality
Gaunaurd, I. A., 2013	●	●	●	●	○	○	Low Quality

Study	Representative Population	Reason for Follow Up Loss	Prognostic Factor Measured	Outcome Measurement	Confounders	Appropriate Statistical Analysis	Strength
Gunawardena, N., 2007	●	●	◑	●	○	○	Low Quality
Hutchison, T. N., 2014	●	●	◑	◑	◑	○	Low Quality
Jain, A., 2013	●	●	◑	◑	○	◑	Low Quality
Laferrier, J. Z., 2010	●	●	◑	●	◑	○	Low Quality
Low, E. E., 2017	●	●	◑	◑	◑	○	Low Quality
Melcer, T., 2013	●	◑	◑	◑	◑	◑	Low Quality
Melcer, T., 2017	●	●	◑	◑	◑	◑	Low Quality
Melton, S. M., 1997	●	●	◑	◑	◑	○	Low Quality
Stranix, J. T., 2017	●	◑	◑	◑	◑	◑	Low Quality
Webster, C. E., 2018	●	●	●	◑	○	◑	Low Quality
Wen, P. S., 2018	●	●	●	●	○	○	Low Quality
Working, Z. M., 2017	●	◑	◑	●	○	◑	Low Quality

Section 1. Smoking-Drugs-Alcohol

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
Bosse, M. J., 2002	Low Quality	pts w/ severe leg injuries resulting in reconstruction or amputation.	Sickness impact Profile (SIP)	Smoking/Drugs/Alcohol	<10 Cigarettes/day	460	24 mon.	time since injury, summary score, treatment, complication, education, income, race, insurance, smoking, self-efficacy, social support, lawyer hired	Multivariate Logistic regression, percent difference, p-value	16.6, P<0.05	<10 Cigarettes /day increases the odds of a worse overall SIP score
Bosse, M. J., 2002	Low Quality	pts w/ severe leg injuries resulting in reconstruction or amputation.	Sickness Impact Profile (Physical function score)	Smoking/Drugs/Alcohol	<10 Cigarettes/day	460	24 mon.	time since injury, summary score, treatment, complication, education, income, race, insurance, smoking, self-efficacy, social support, lawyer hired	Multivariate Logistic regression, percent difference, p-value	16.2, P<0.05	<10 Cigarettes /day increases the odds of a worse physical function score
Bosse, M. J., 2002	Low Quality	pts w/ severe leg injuries resulting in reconstruction or amputation.	Sickness Impact Profile (Psychosocial function score)	Smoking/Drugs/Alcohol	<10 Cigarettes/day	460	24 mon.	time since injury, summary score, treatment, complication, education, income, race, insurance, smoking, self-efficacy, social	Multivariate Logistic regression, percent difference	17	Not Significant

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
								support, lawyer hired			
Bosse, M. J., 2002	Low Quality	pts w/ severe leg injuries resulting in reconstruction or amputation.	Sickness impact Profile (SIP)	Smoking/Drugs/Alcohol	>=10 Cigarettes/day	460	24 mon.	time since injury, summary score, treatment, complication, education, income, race, insurance, smoking, self-efficacy, social support, lawyer hired	Multivariate Logistic regression, percent difference, p-value	24.1, P<0.01	>=10 Cigarettes /day increases the odds of a worse overall SIP score
Bosse, M. J., 2002	Low Quality	pts w/ severe leg injuries resulting in reconstruction or amputation.	Sickness Impact Profile (Psychosocial function score)	Smoking/Drugs/Alcohol	>=10 Cigarettes/day	460	24 mon.	time since injury, summary score, treatment, complication, education, income, race, insurance, smoking, self-efficacy, social support, lawyer hired	Multivariate Logistic regression, percent difference, p-value	36, P<0.05	>=10 Cigarettes /day increases the odds of a worse psychosocial function score
Bosse, M. J., 2002	Low Quality	pts w/ severe leg injuries resulting in reconstruction or amputation.	Sickness Impact Profile (Physical function score)	Smoking/Drugs/Alcohol	>=10 Cigarettes/day	460	24 mon.	time since injury, summary score, treatment, complication, education, income, race, insurance, smoking, self-efficacy, social	Multivariate Logistic regression, percent difference, p-value	27.9, P<0.05	>=10 Cigarettes /day increases the odds of a worse physical function score

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
								support, lawyer hired			
MacKenzie, E. J., 2005	Mod. Quality	LEAP Study patients; Unilateral injuries only.	Physical SIP Sub-score of >=5 points	Smoking/Drugs/Alcohol	Current smoker	397	84 mon.	Treatment, age, gender, race, education, poverty status, smoking status, legal involvement, self-efficacy, probability of amputation	Multivariate Logistic Regression; OR, p-value	2.1, <0.01	Current smokers are at increased odds of a higher SIP than never smokers
MacKenzie, E. J., 2005	Mod. Quality	LEAP Study patients; Unilateral injuries only.	Physical SIP Sub-score of >=20 points	Smoking/Drugs/Alcohol	Current smoker	397	84 mon.	Treatment, age, gender, race, education, poverty status, smoking status, legal involvement, self-efficacy, probability of amputation	Multivariate Logistic Regression; OR, p-value	3.3, <0.01	Current smokers are at increased odds of a higher SIP than never smokers
MacKenzie, E. J., 2005	Mod. Quality	LEAP Study patients; Unilateral injuries only.	Psychosocial SIP Sub-score of >=5 points	Smoking/Drugs/Alcohol	Current smoker	397	84 mon.	Treatment, age, gender, race, education, poverty status, smoking status, legal involvement, self-efficacy, probability of amputation	Multivariate Logistic Regression; OR, p-value	1.7, <0.05	Current smokers are at increased odds of a higher psychosocial SIP than never smokers
MacKenzie, E. J., 2005	Mod. Quality	LEAP Study patients;	Psychosocial SIP Sub-	Smoking/Drugs/Alcohol	Current smoker	397	84 mon.	Treatment, age, gender, race, education,	Multivariate Logistic	1.8, <0.05	Current smokers are at

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
		Unilateral injuries only.	score of >=20 points					poverty status, smoking status, legal involvement, self-efficacy, probability of amputation	Regression; OR, p-value		increased odds of a higher psychosocial SIP than never smokers
MacKenzie, E. J., 2005	Mod. Quality	LEAP Study patients; Unilateral injuries only.	Physical SIP Sub-score of >=5 points	Smoking/Drugs/Alcohol	Quit smoking	397	84 mon.	Treatment, age, gender, race, education, poverty status, smoking status, legal involvement, self-efficacy, probability of amputation	Multivariate Logistic Regression; OR, p-value	2.1, <0.01	recent smokers are at increased odds of a higher SIP than never smokers
MacKenzie, E. J., 2005	Mod. Quality	LEAP Study patients; Unilateral injuries only.	Physical SIP Sub-score of >=20 points	Smoking/Drugs/Alcohol	Quit smoking	397	84 mon.	Treatment, age, gender, race, education, poverty status, smoking status, legal involvement, self-efficacy, probability of amputation	Multivariate Logistic Regression; OR, p-value	2.2, <0.01	recent smokers are at increased odds of a higher SIP than never smokers
MacKenzie, E. J., 2005	Mod. Quality	LEAP Study patients; Unilateral injuries only.	Psychosocial SIP Sub-score of >=5 points	Smoking/Drugs/Alcohol	Quit smoking	397	84 mon.	Treatment, age, gender, race, education, poverty status, smoking status, legal involvement, self-efficacy,	Multivariate Logistic Regression; OR, p-value	2.3, <0.01	Smokers who quit are at increased odds of a higher psychosocial SIP

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
								probability of amputation			than never smokers
MacKenzie, E. J., 2005	Mod. Quality	LEAP Study patients; Unilateral injuries only.	Psychosocial SIP Sub-score of >=20 points	Smoking/Drugs/Alcohol	Quit smoking	397	84 mon.	Treatment, age, gender, race, education, poverty status, smoking status, legal involvement, self-efficacy, probability of amputation	Multivariate Logistic Regression; OR, p-value	1.3, <0.10	
Jain, A., 2013	Low Quality	pts w/ non-salvageable lower limb injuries	Infection in Residual Limb	Smoking/Drugs/Alcohol	Smoker	40		>1 debridement, amputation>5 days post injury, ischaemic vascular injury/multi-planar degloving, above-knee amputation, tertiary referral, smoker, diabetes	Multivariate Logistic Regression, OR, CI, p-value	1.8 (0.5-7.1), >0.05	Not Significant
MacKenzie, E. J., 2004	Mod. Quality	All pts unilateral lower limb amputation, most injuries from motor vehicle accident	Overall Sickness impact Profile (SIP)	Smoking/Drugs/Alcohol	Smoking	124		level of amputation, age, education, insurance, income, smoking status, chronic medical conditions, injury severity score, ipsilateral	Multivariate Logistic regression, percent difference, p-value	32.3, 0.02	Smoking results in increased odds of overall SIP score

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
								injury, self-efficacy			
MacKenzie, E. J., 2004	Mod. Quality	All pts unilateral lower limb amputation, most injuries from motor vehicle accident	Physical Function of SIP	Smoking/Drugs/Alcohol	Smoking	124		level of amputation, age, education, insurance, income, smoking status, chronic medical conditions, injury severity score, ipsilateral injury, self-efficacy	Multivariate Logistic regression, percent difference, p-value	31.9, 0.02	Smoking results in increased odds of physical function SIP score
MacKenzie, E. J., 2004	Mod. Quality	All pts unilateral lower limb amputation, most injuries from motor vehicle accident	Psychosocial Function of SIP	Smoking/Drugs/Alcohol	Smoking	124		level of amputation, age, education, insurance, income, smoking status, chronic medical conditions, injury severity score, ipsilateral injury, self-efficacy	Multivariate Logistic regression, percent difference, p-value	53.4, 0.001	Smoking results in increased odds of psychosocial function SIP score
MacKenzie, E. J., 2004	Mod. Quality	All pts unilateral lower limb amputation, most injuries from motor vehicle accident	Walking speed (>=4 ft/sec)	Smoking/Drugs/Alcohol	Smoking	124		level of amputation, age, education, insurance, income, smoking status, chronic medical conditions, injury severity score, ipsilateral	Multivariate Logistic regression, OR, p-value	0.37, 0.11	Not Significant

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
								injury, self-efficacy			
MacKenzie, E. J., 2006	High Quality	LEAP Data; Unilateral injuries; motor vehicle primary mechanism of injury	Return to Work (RTW)	Smoking/Drugs/Alcohol	Smoking Status (quit smoking)	423	84 mon.	P-amp score, treatment, age, gender, race, education, smoking status, invovment w/ legal system, self efficacy, job tenure, job involvement, 3-month VAS pain, 3-month physical SIP score	Proportional Hazards regression, RR, CI, p-value	1.42 (0.96-2.11), p<0.1	Not Significant
MacKenzie, E. J., 2006	High Quality	LEAP Data; Unilateral injuries; motor vehicle primary mechanism of injury	Return to Work (RTW)	Smoking/Drugs/Alcohol	Smoking Status (never smoked)	423	84 mon.	P-amp score, treatment, age, gender, race, education, smoking status, invovment w/ legal system, self efficacy, job tenure, job involvement, 3-month VAS pain, 3-month physical SIP score	Proportional Hazards regression, RR, CI, p-value	1.87 (1.29-2.70), p<0.01	Those who never smoked have an increase risk of RTW

Section 2. Poly-trauma

PICO 1

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
Webster, C. E., 2018	Low Quality	UK military personnel; bilateral and unilateral amputation avg ISS: 26;	Mortality	Poly-trauma	Associated Pelvic Fracture	958	pelvic fracture, traumatic amputation level, extremity	Multivariate Logistic Regression; OR, CI	3.135 (2.104-4.673)	Pelvic fracture was significantly associated with fatality
Webster, C. E., 2018	Low Quality	UK military personnel; bilateral and unilateral amputation avg ISS: 26;	Mortality	Poly-trauma	Bilateral extremity traumatic amputation	958	pelvic fracture, traumatic amputation level, extremity	Multivariate Logistic Regression; OR, CI	1.611 (1.219-2.129)	Those with bilateral lower extremity amputation had higher odds of fatality

PICO 2

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
Working, Z. M., 2017	Low Quality	Minimum of two fractures in the midfoot and forefoot; avg age: 35.7	EQ-5D Mobility	Poly-trauma	# of fractures	51		unclear; possibly amputation, # of fractures, gustilo grade, injury mechanism	Multivariate Logistic Regression; P-value	0.3	Not Significant
Working, Z. M., 2017	Low Quality	Minimum of two fractures in the midfoot and forefoot; avg age: 35.7	EQ-5D Anxiety and Depression	Poly-trauma	# of fractures	51		amputation, # of fractures, gustilo grade, injury mechanism	Multivariate Logistic Regression; P-value	0.25	Not Significant
Working, Z. M., 2017	Low Quality	Minimum of two fractures in the midfoot and forefoot; avg age: 35.7	EQ-5D Total	Poly-trauma	# of fractures	51		amputation, # of fractures, gustilo grade, injury mechanism	Multivariate Linear Regression; P-value	0.06	Not Significant
Working, Z. M., 2017	Low Quality	Minimum of two fractures in the midfoot and forefoot; avg age: 35.7	EQ-5D VAS	Poly-trauma	# of fractures	51		amputation, # of fractures, gustilo grade, injury mechanism	Multivariate Linear Regression; P-value	0.81	Not Significant
Working, Z. M., 2017	Low Quality	Minimum of two fractures in the midfoot and forefoot; avg age: 35.7	EQ-5D Usual Activities	Poly-trauma	# of fractures	51		amputation, # of fractures, gustilo grade, injury mechanism	Multivariate Logistic Regression; P-value	0.09	Not Significant

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
Working, Z. M., 2017	Low Quality	Minimum of two fractures in the midfoot and forefoot; avg age: 35.7	EQ-5D Pain and Discomfort	Poly-trauma	# of fractures	51		amputation, # of fractures, gustilo grade, injury mechanism	Multivariate Logistic Regression; P-value	0.46	Not Significant
Allami, M., 2017	Mod. Quality	Veterans with ankle-foot injuries	SF-36 MCS	Poly-trauma	Additional Injuries	1079		education, employment, additional injuries, hospitalization, ADLs, IADLs	Multivariate linear regression; Coefficient, SE, P-value	4.758, 1.196, <0.001	Additional injuries were a determinant of poorer mental health
Allami, M., 2017	Mod. Quality	Veterans with ankle-foot injuries	SF-36 Physical Component Score	Poly-trauma	Additional injuries	1079		age, disability rate, employment, additional injuries, hospitalization, ADLs, IADLs	Multivariate linear regression; Coefficient, SE, P-value	3.716, 1.033, <0.001	Presence of additional injuries is associated with poorer PCS scores
Masoumi, M., 2014	Mod. Quality	mixture of civilian and military; unilateral hip disarticulation; avg age 19.54	SF-36 PCS	Poly-trauma	Additional war-related injuries	76		Age, education, employment status, marital status, other war-related injuries, history of hospitalization, prosthetic use, side of disarticulation, sports activities	Multivariate Logistic Regression	NS	Not Significant

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
Masoumi, M., 2014	Mod. Quality	mixture of civilian and military; unilateral hip disarticulation; avg age 19.54	SF-36 MCS	Poly-trauma	Additional war-related injuries	76		Age, education, employment status, marital status, other war-related injuries, history of hospitalization, prosthetic use, side of disarticulation, sports activities	Multivariate Logistic Regression	NS	Not Significant
Laferrier, J. Z., 2010	Low Quality	OIF/OEF service members w/ lower limb loss	Wheelchair use	Poly-trauma	Total number of combat injuries	226		bilateral limb loss, multiple limb loss, cumulative trauma disorder, traumatic brain injury, # of combat injuries, age, sex, race, weight gain, pain, mental health, Quality of life, prosthetic device satisfaction and fit, health status, stroke, PTSD, TBI, pantom limb, # of surgeries,	Multivariate Logistic regression, OR, CI, p-value	1.38 (1.15-1.65)	Increasing number of combat injuries is associated with higher odds of wheelchair use

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
								type of prosthetic.			
Laferrier, J. Z., 2010	Low Quality	OIF/OEF service members w/ lower limb loss	Wheelchair use	Poly-trauma	Bilateral lower-limb loss	226		bilateral limb loss, multiple limb loss, cumulative trauma disorder, traumatic brain injury, # of combat injuries, age, sex, race, weight gain, pain, mental health, Quality of life, prosthetic device satisfaction and fit, health status, stroke, PTSD, TBI, pantom limb, # of surgeries, type of prosthetic.	Multivariate Logistic regression, OR, CI, p-value	29.75 (11.0-80.7), p<0.001	Compared to unilateral lower-limb loss, bilateral limb loss has higher odds of wheelchair use
Laferrier, J. Z., 2010	Low Quality	Vietnam service members w/ lower limb loss	Wheelchair use	Poly-trauma	Bilateral lower-limb loss	245		age, sex, race, weight gain, pain, mental health, QoL, prosthetic device satisfaction, health status, stroke, PTSD,	Multivariate Logistic regression, OR, CI, p-value	12.72 (6.21-26.10), <0.001	Compared to unilateral lower-limb loss, bilateral limb loss has higher odds of

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
								TBI, phantom limb, # of surgeries, type of prosthetic, multiple-limb loss, bilateral limb-loss, comorbidities, ambulatory, highly active			wheelchair use
Bennett, P. M., 2017	Mod. Quality	High-energy military injuries of the ankle and foot, primarily blast injuries.	Delayed Amputation of injured area	Poly-trauma	Coexisting midfoot fracture	114		open fracture, deep infection, nonoperative management, k-wire fixation, open reduction internal fixation, coexisting tibial plafond fracture, coexisting midfoot fracture	Multivariate Logistic Regression; Coefficient, CI, P-value	-1.019 (0.093-1.402), 0.141	Not Significant
Bennett, P. M., 2018	Low. Quality	Military foot and ankle fractures; median NISS score 12 for all groups	AAOS F&A Score	Poly-trauma	Coexisting talal and calcaneal fracture	77		Negative Bohler's angle, coexisting talal and calcaneal fracture, plafond fracture in addition to hindfoot fracture	Multivariate Linear Regression; change in score, CI, P-value	-12 (-24.3- -2.6), 0.026	Coexisting talal and calcaneal fracture are associated with significantly lower AAOS F&A Scores
Bennett, P. M., 2017	Mod. Quality	High-energy military	Delayed Amputation	Poly-trauma	Coexisting tibial	114		open fracture, deep infection,	Multivariate Logistic	20.083, 0.998	Not Significant

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
		injuries of the ankle and foot, primarily blast injuries.	of injured area		plafond fracture			nonoperative management, k-wire fixation, open reduction internal fixation, coexisting tibial plafond fracture, coexisting midfoot fracture	Regression; Coefficient, P-value		
Bennett, P. M., 2018	Low Quality	Military foot and ankle fractures; median NISS score 12 for all groups	AAOS F&A Score	Poly-trauma	Fracture of the mid-foot in addition to a hindfoot fracture	77		Negative Bohler's angle, coexisting talal and calcaneal fracture, coexisting plafond fracture, coexisting mid-foot fracture, open fracture, nerve injury, vascular injury	Multivariate Linear Regression	NS	Not Significant
Hutchison, T. N., 2014	Low Quality	Military-related amputees; avg age 23, IED most common mechanism of injury	Pulmonary embolism (PE)	Poly-trauma	Multiple amputations	1003		OEF, blunt injury, multiple amputations, transfemoral amputation, ISS, abdomen AIS, extremity AIS	Multivariate Logistic regression, OR, CI, p-value	1.67 (1.00-2.78), 0.0482	Multiple amputations results in increased odds of PE
Hutchison, T. N., 2014	Low Quality	Military-related amputees; avg age 23,	Venous thromboembolism (VTE)	Poly-trauma	Multiple amputations	1003		OEF, blunt injury, multiple amputations, transfemoral	Multivariate Logistic regression,	2.15 (1.35-3.42), 0.0013	Multiple amputations results in

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
		IED most common mechanism of injury						amputation, ISS, abdomen AIS, extremity AIS, head and neck AIS	OR, CI, p-value		increased odds of VTE
Laferrier, J. Z., 2010	Low Quality	OIF/OEF service members w/ lower limb loss	Wheelchair use	Poly-trauma	Multiple-limb loss	226		bilateral limb loss, multiple limb loss, cumulative trauma disorder, traumatic brain injury, # of combat injuries, age, sex, race, weight gain, pain, mental health, Quality of life, prosthetic device satisfaction and fit, health status, stroke, PTSD, TBI, pantom limb, # of surgeries, type of prosthetic.	Multivariate Logistic regression, OR, CI, p-value	16.31 (3.12-85.30), <0.001	Multiple limb loss results in increased odds of wheelchair use
Laferrier, J. Z., 2010	Low Quality	Vietnam service members w/ lower limb loss	Wheelchair use	Poly-trauma	Multiple-limb loss	245		age, sex, race, weight gain, pain, mental health, QoL, prosthetic device	Multivariate Logistic regression, OR, CI, p-value	14.48 (5.46-38.46), <0.001	Multiple limb loss results in increased odds of

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
								satisfaction, health status, stroke, PTSD, TBI, phantom limb, # of surgeries, type of prosthetic, multiple-limb loss, bilateral limb-loss, comorbidities, ambulatory, highly active			wheelchair use
Bennett, P. M., 2018	Low Quality	Military foot and ankle fractures; median NISS score 12 for all groups	AAOS F&A Score	Poly-trauma	Tibial plafond fracture in addition to hindfoot fracture	77		Negative Bohler's angle, coexisting talal and calcaneal fracture, plafond fracture in addition to hindfoot fracture	Multivariate Linear Regression; change in score, CI, P-value	-10 (-20.1- -1.0), 0.030	Tibial plafond fracture in addition to hindfoot fracture is associated with significantly lower F&A
Laferrier, J. Z., 2010	Low Quality	OIF/OEF service members w/ lower limb loss	Wheelchair use	Poly-trauma	Traumatic Brain Injury	226		bilateral limb loss, multiple limb loss, cumulative trauma disorder, traumatic brain injury, # of combat injuries, age, sex, race,	Multivariate Logistic regression,	NS	Not Significant

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
								weight gain, pain, mental health, Quality of life, prosthetic device satisfaction and fit, health status, stroke, PTSD, TBI, pantom limb, # of surgeries, type of prosthetic.			
Laferrier, J. Z., 2010	Low Quality	Vietnam service members w/ lower limb loss	Wheelchair use	Poly-trauma	Traumatic Brain Injury	245		age, sex, race, weight gain, pain, mental health, QoL, prosthetic device satisfaction, health status, stroke, PTSD, TBI, phantom limb, # of surgeries, type of prosthetic, multiple-limb loss, bilateral limb-loss, comorbidities, ambulatory, highly active	Multivariate Logistic regression,	NS	Not Significant
Melcer, T., 2017	Low Quality	military-related	DVT/PE	Poly-trauma	Traumatic Brain Injury	625		age, log ISS, mechanism of	Multivariate Logistic	NS	Not Significant

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
		unilateral lower limb trauma						injury, injury year, injury location, preinjury psychological diagnosis	regression, OR, CI		
Melcer, T., 2017	Low Quality	military-related unilateral lower limb trauma	Any Musculoskeletal complications	Poly-trauma	Traumatic Brain Injury	625		age, log ISS, mechanism of injury, injury year, injury location, preinjury psychological diagnosis	Multivariate Logistic regression, OR, CI	NS	Not Significant
Melcer, T., 2017	Low Quality	military-related unilateral lower limb trauma;	Pain	Poly-trauma	Traumatic Brain Injury	625		age, log ISS, mechanism of injury, injury year, injury location, preinjury psychological diagnosis	Multivariate Logistic regression, OR, CI	NS	Not Significant
Melcer, T., 2017	Low Quality	military-related unilateral lower limb trauma;	Osteoarthritis	Poly-trauma	Traumatic Brain Injury	625		age, log ISS, mechanism of injury, injury year, injury location, preinjury psychological diagnosis	Multivariate Logistic regression, OR, CI	NS	Not Significant
Melcer, T., 2017	Low Quality	military-related unilateral lower limb trauma;	Any infection	Poly-trauma	Traumatic Brain Injury	625		age, log ISS, mechanism of injury, injury year, injury location,	Multivariate Logistic regression, OR, CI	NS	Not Significant

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
								preinjury psychological diagnosis			
Melcer, T., 2017	Low Quality	military-related unilateral lower limb trauma;	Osteomyelitis	Poly-trauma	Traumatic Brain Injury	625		age, log ISS, mechanism of injury, injury year, injury location, preinjury psychological diagnosis	Multivariate Logistic regression, OR, CI	NS	Not Significant
Melcer, T., 2017	Low Quality	military-related unilateral lower limb trauma;	Nonhealing wounds	Poly-trauma	Traumatic Brain Injury	625		age, log ISS, mechanism of injury, injury year, injury location, preinjury psychological diagnosis	Multivariate Logistic regression, OR, CI	NS	Not Significant
Melcer, T., 2017	Low Quality	military-related unilateral lower limb trauma;	Osteoporosis	Poly-trauma	Traumatic Brain Injury	625		age, log ISS, mechanism of injury, injury year, injury location, preinjury psychological diagnosis	Multivariate Logistic regression, OR, CI	NS	Not Significant

Section 3.1. Psychological Factors

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
O'Toole, R. V., 2008	High Quality	LEAP data; limb-threatening lower-extremity injures	Patient Satisfaction	Psychological Factors	Anxiety	463	2 years	age, gender, education, poverty status, race, insurance, personality profile, medical comorbidites, preinjury work status, preinjury job type, mechanism of injury, open fracture type, severity of bone or skin damage, severity of nerve damage, reconstruction or amputation, timing of initial debridement, timing of admission, timing of definite soft tissue coverage, return to work, SIP, walking speed, pain intensity, major complication, less anxiety	Multivariate logistic regression, p-value	p<0.1	Less anxiety results in the increased odds of satisfaction

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
MacKenzie, E. J., 2005	Mod. Quality	LEAP Study patients; Unilateral injuries only.	Physical SIP Sub-score of >=5 points	Psychological Factors	Average Self-efficacy	397	84 mon.	Treatment, age, gender, race, education, poverty status, smoking status, legal involvement, self-efficacy, probability of amputation	Multivariate Logistic Regression; OR	1.5	Not Significant
MacKenzie, E. J., 2005	Mod. Quality	LEAP Study patients; Unilateral injuries only.	Physical SIP Sub-score of >=20 points	Psychological Factors	Average Self-efficacy	397	84 mon.	Treatment, age, gender, race, education, poverty status, smoking status, legal involvement, self-efficacy, probability of amputation	Multivariate Logistic Regression; OR	1.2	Not Significant
MacKenzie, E. J., 2005	Mod. Quality	LEAP Study patients; Unilateral injuries only.	Psychosocial SIP Sub-score of >=20 points	Psychological Factors	Average Self-efficacy	397	84 mon.	Treatment, age, gender, race, education, poverty status, smoking status, legal involvement, self-efficacy, probability of amputation	Multivariate Logistic Regression; OR	1.1	Not Significant
Bosse, M. J., 2002	Low Quality	pts w/ severe leg injuries resulting in reconstructio	Sickness impact Profile (SIP)	Psychological Factors	Self-efficacy	460	24 mon.	time since injury, summary score, treatment, complication,	Multivariate Logistic regression, percent	-0.6, <0.01	Increasing self-efficacy was associated

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
		n or amputation.						education, income, race, insurance, smoking, self-efficacy, social support, lawyer hired	difference, p-value		with better SIP score
Bosse, M. J., 2002	Low Quality	pts w/ severe leg injuries resulting in reconstruction or amputation.	Sickness Impact Profile (Psychosocial function score)	Psychological Factors	Self-efficacy	460	24 mon.	time since injury, summary score, treatment, complication, education, income, race, insurance, smoking, self-efficacy, social support, lawyer hired	Multivariate Logistic regression, percent difference, p-value	-0.7, <0.01	Increasing self-efficacy was associated with better SIP (Psychosocial function) score
Bosse, M. J., 2002	Low Quality	pts w/ severe leg injuries resulting in reconstruction or amputation.	Sickness Impact Profile (Physical function score)	Psychological Factors	Self-efficacy	460	24 mon.	time since injury, summary score, treatment, complication, education, income, race, insurance, smoking, self-efficacy, social support, lawyer hired	Multivariate Logistic regression, percent difference, p-value	-0.7, <0.01	Increasing self-efficacy was associated with better SIP (Physical function) score
O'Toole, R. V., 2008	High Quality	LEAP data; limb-threatening lower-	Patient Satisfaction	Psychological Factors	Depression	463	2 years	age, gender, education, poverty status, race, insurance,	Multivariate logistic regression, p-value	p<0.05	No depression results in an

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
		extremity injures						personality profile, medical comorbidites, preinjury work status, preinjury job type, mechanism of injury, open fracture type, severity of bone or skin damage, severity of nerve damage, reconstruction or amputation, timing of initial debridement, timing of admission, timing of definite soft tissue coverage, return to work, SIP, walking speed, pain intensity, major complication, less anxiety			increased odds of satisfaction
Laferrier, J. Z., 2010	Low Quality	OIF/OEF service members w/ lower limb loss	Wheelchair use	Psychological Factors	Depression	226		bilateral limb loss, multiple limb loss, cumulative trauma disorder, traumatic brain	Multivariate Logistic regression,	NS	Not Significant

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
								injury, # of combat injuries, age, sex, race, weight gain, pain, mental health, Quality of life, prosthetic device satisfaction and fit, health status, stroke, PTSD, TBI, pantom limb, # of surgeries, type of prosthetic.			
Laferrier, J. Z., 2010	Low Quality	Vietnam service members w/ lower limb loss	Wheelchair use	Psychological Factors	Depression	245		age, sex, race, weight gain, pain, mental health, QoL, prosthetic device satisfaction, health status, stroke, PTSD, TBI, phantom limb, # of surgeries, type of prosthetic, multiple-limb loss, bilateral limb-loss, comorbidities,	Multivariate Logistic regression,	NS	Not Significant

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
								ambulatory, highly active			
MacKenzie, E. J., 2005	Mod. Quality	LEAP Study patients; Unilateral injuries only.	Psychosocial SIP Sub-score of >=20 points	Psychological Factors	Low self-efficacy	397	84 mon.	Treatment, age, gender, race, education, poverty status, smoking status, legal involvement, self-efficacy, probability of amputation	Multivariate Logistic Regression; OR, p-value	2.5, <0.05	Compared to high, low self-efficacy is associated with increased odds of high psychosocial SIP score
MacKenzie, E. J., 2005	Mod. Quality	LEAP Study patients; Unilateral injuries only.	Physical SIP Sub-score of >=5 points	Psychological Factors	Low Self-efficacy	397	84 mon.	Treatment, age, gender, race, education, poverty status, smoking status, legal involvement, self-efficacy, probability of amputation	Multivariate Logistic Regression; OR	2.2, <0.05	Compared to high, low self-efficacy is associated with increased odds of higher SIP score
MacKenzie, E. J., 2005	Mod. Quality	LEAP Study patients; Unilateral injuries only.	Physical SIP Sub-score of >=20 points	Psychological Factors	Low Self-efficacy	397	84 mon.	Treatment, age, gender, race, education, poverty status, smoking status, legal involvement, self-efficacy, probability of amputation	Multivariate Logistic Regression; OR	2.2, <0.05	Compared to high, low self-efficacy is associated with increased odds of higher SIP score

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
Melcer, T., 2013	Low Quality	military-related lower limb injury	PTSD	Psychological Factors	Preinjury psychological diagnosis	772		age, log ISS, mechanism of injury (blast or nonblast), injury year (2001Y2005 or 2006Y2008), injury location (above the knee or below the knee), or preinjury psychological diagnosis.	Multivariate Logistic regression, OR, CI	2.62 (1.45-4.75)	Preinjury psychological diagnosis is associated with increased odds of PTSD
Melcer, T., 2013	Low Quality	military-related lower limb injury	Substance Abuse	Psychological Factors	Preinjury psychological diagnosis	772		age, log ISS, mechanism of injury (blast or nonblast), injury year (2001Y2005 or 2006Y2008), injury location (above the knee or below the knee), or preinjury psychological diagnosis.	Multivariate Logistic regression, OR, CI	4.25 (2.21-8.16)	Preinjury psychological diagnosis is associated with increased odds of substance abuse
Melcer, T., 2013	Low Quality	military-related lower limb injury	PTSD	Amputation	Early amputation	772		age, log ISS, mechanism of injury (blast or nonblast), injury year (2001Y2005 or 2006Y2008),	Multivariate Logistic regression, OR, CI	0.39 (0.24-0.63)	Early amputation is associated with decreased

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
								injury location (above the knee or below the knee), or preinjury psychological diagnosis.			odds of PTSD
Melcer, T., 2013	Low Quality	military-related lower limb injury	Substance Abuse	Amputation	Early amputation	772		age, log ISS, mechanism of injury (blast or nonblast), injury year (2001Y2005 or 2006Y2008), injury location (above the knee or below the knee), or preinjury psychological diagnosis.	Multivariate Logistic regression, OR, CI	0.54 (0.29-0.99)	Early amputation is associated with decreased odds of substance abuse
Melcer, T., 2013	Low Quality	military-related lower limb injury	Anxiety	Amputation	Early amputation	772		age, log ISS, mechanism of injury (blast or nonblast), injury year (2001Y2005 or 2006Y2008), injury location (above the knee or below the knee), or preinjury psychological diagnosis.	Multivariate Logistic regression, OR, CI	NS	Not Significant

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
Melcer, T., 2013	Low Quality	military-related lower limb injury	Adjustment Disorders	Amputation	Early amputation	772		age, log ISS, mechanism of injury (blast or nonblast), injury year (2001Y2005 or 2006Y2008), injury location (above the knee or below the knee), or preinjury psychological diagnosis.	Multivariate Logistic regression, OR, CI	NS	Not Significant
Melcer, T., 2013	Low Quality	military-related lower limb injury	Anxiety	Amputation	Late amputation	772		age, log ISS, mechanism of injury (blast or nonblast), injury year (2001Y2005 or 2006Y2008), injury location (above the knee or below the knee), or preinjury psychological diagnosis.	Multivariate Logistic regression, OR, CI	NS	Not Significant
Melcer, T., 2013	Low Quality	military-related lower limb injury	Mood Disorder	Amputation	Late amputation	772		age, log ISS, mechanism of injury (blast or nonblast), injury year (2001Y2005 or 2006Y2008),	Multivariate Logistic regression, OR, CI	2.16 (1.11-4.19)	Late amputation is associated with increased odds of

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
								injury location (above the knee or below the knee), or preinjury psychological diagnosis.			mood disorder
Melcer, T., 2013	Low Quality	military-related lower limb injury	Adjustment Disorders	Amputation	Late amputation	772		age, log ISS, mechanism of injury (blast or nonblast), injury year (2001Y2005 or 2006Y2008), injury location (above the knee or below the knee), or preinjury psychological diagnosis.	Multivariate Logistic regression, OR, CI	NS	Not Significant
Melcer, T., 2013	Low Quality	military-related lower limb injury	Traumatic Brain Injury Rate	Amputation	Late amputation	772		age, log ISS, mechanism of injury (blast or nonblast), injury year (2001Y2005 or 2006Y2008), injury location (above the knee or below the knee), or preinjury psychological diagnosis.	Multivariate Logistic regression, OR, CI	NS	Not Significant

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
Melcer, T., 2013	Low Quality	military-related lower limb injury	Traumatic Brain Injury Rate	Amputation	Early amputation	772		age, log ISS, mechanism of injury (blast or nonblast), injury year (2001Y2005 or 2006Y2008), injury location (above the knee or below the knee), or preinjury psychological diagnosis.	Multivariate Logistic regression, OR, CI	NS	Not Significant
Laferrier, J. Z., 2010	Low Quality	OIF/OEF service members w/ lower limb loss	Wheelchair use	Psychological Factors	PTSD	226		bilateral limb loss, multiple limb loss, cumulative trauma disorder, traumatic brain injury, # of combat injuries, age, sex, race, weight gain, pain, mental health, Quality of life, prosthetic device satisfaction and fit, health status, stroke, PTSD, TBI, pantom limb, #	Multivariate Logistic regression,	NS	Not Significant

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
								of surgeries, type of prosthetic.			
Laferrier, J. Z., 2010	Low Quality	Vietnam service members w/ lower limb loss	Wheelchair use	Psychological Factors	PTSD	245		age, sex, race, weight gain, pain, mental health, QoL, prosthetic device satisfaction, health status, stroke, PTSD, TBI, phantom limb, # of surgeries, type of prosthetic, multiple-limb loss, bilateral limb-loss, comorbidities, ambulatory, highly active	Multivariate Logistic regression,	NS	Not Significant

Section 3.2. Psychosocial Support

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
Masoumi, M., 2014	Mod. Quality	mixture of civilian and military; unilateral hip disarticulation; avg age 19.54	SF-36 PCS	Psychosocial Support	Marital Status	76		Age, education, employment status, marital status, other war-related injuries, history of hospitalization, prosthetic use, side of disarticulation, sports activities	Multivariate Logistic Regression	NS	Not Significant
Masoumi, M., 2014	Mod. Quality	mixture of civilian and military; unilateral hip disarticulation; avg age 19.54	SF-36 MCS	Psychosocial Support	Marital status	76		Age, education, employment status, marital status, other war-related injuries, history of hospitalization, prosthetic use, side of disarticulation, sports activities	Multivariate Logistic Regression	NS	Not Significant
Almassi, F., 2010	Low Quality	Iraq-Iran war veterans; amputations primarily due to blast injuries	Skin lesion	Psychosocial Support	Marriage	335		marriage, education, age, prosthesis, ambulation, stump washing frequency, stump shape, stump length, amputation	Multivariate logistic regression, OR, CI, P-value	NS	Not Significant

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
								level, excessive perspiration			
Bosse, M. J., 2002	Low Quality	pts w/ severe leg injuries resulting in reconstruction or amputation.	Sickness impact Profile (SIP)	Psychosocial Support	Social support	460	24 mon.	time since injury, summary score, treatment, complication, education, income, race, insurance, smoking, self-efficacy, social support, lawyer hired	Multivariate Logistic regression, percent difference, P-value	-0.5, P<0.10	Increase in social support results in increased odds of improved overall SIP
Bosse, M. J., 2002	Low Quality	pts w/ severe leg injuries resulting in reconstruction or amputation.	Sickness Impact Profile (Physical function score)	Psychosocial Support	Social Support	460	24 mon.	time since injury, summary score, treatment, complication, education, income, race, insurance, smoking, self-efficacy, social support, lawyer hired	Multivariate Logistic regression, percent difference, P-value	-0.4, P<0.05	Increase in social support results in increased odds of an improved physical function score
Bosse, M. J., 2002	Low Quality	pts w/ severe leg injuries resulting in reconstruction or amputation.	Sickness Impact Profile (Psychosocial function score)	Psychosocial Support	Social Support	460	24 mon.	time since injury, summary score, treatment, complication, education, income, race, insurance, smoking, self-	Multivariate Logistic regression, percent difference, P-value	-0.8, P<0.01	Increase in social support results in increased odds of an improved psychosocial

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
								efficacy, social support, lawyer hired			function score

Section 4. Rehabilitation

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
Wen, P. S., 2018	Low Quality	Unilateral amputation as a result of earthquake injuries	Psychosocial Adjustment	Rehabilitation	Advanced physical abilities (LCI)	140		gender, phantom pain, advanced physical abilities	Multiple Regression Analysis, standardized coefficient, p-value	0.32, <0.001	LCI is associated with higher odds of improved psychosocial adjustment
Pezzin, L. E., 2000	Mod. Quality	Unilateral and bilateral amputees; average ISS: 18.5	SF-36 (Low PCS)	Rehabilitation	Inpatient rehabilitation use	78		age, gender, race, time of injury, education, injury severity score, head injury, neck injury, premorbid illness, amputation level, postamputation surgeries	Multivariate Logit Regression, Estimate, p-value	-0.904, 0.17	Not Significant
Pezzin, L. E., 2000	Mod. Quality	Unilateral and bilateral amputees; average ISS: 18.5	SF-36 (Low RP)	Rehabilitation	Inpatient rehabilitation use	78		age, gender, race, time of injury, education, injury severity score, head injury, neck injury, premorbid illness, amputation level, postamputation surgeries	Multivariate Logit Regression, Estimate, p-value	-0.385, 0.01	Inpatient rehab use results in decreased odds of Low RP
Pezzin, L. E., 2000	Mod. Quality	Unilateral and bilateral amputees;	SF-36 (Low BP)	Rehabilitation	Inpatient rehabilitation use	78		age, gender, race, time of injury, education, injury severity	Multivariate Logit Regression,	-0.645, 0.06	Not Significant

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
		average ISS: 18.5						score, head injury, neck injury, premorbid illness, amputation level, postamputation surgeries	Estimate, p-value		
Pezzin, L. E., 2000	Mod. Quality	Unilateral and bilateral amputees; average ISS: 18.5	SF-36 (Low VT)	Rehabilitation	Inpatient rehabilitation use	78		age, gender, race, time of injury, education, injury severity score, head injury, neck injury, premorbid illness, amputation level, postamputation surgeries	Multivariate Logit Regression, Estimate, p-value	-0.533, 0.07	Not Significant
Pezzin, L. E., 2000	Mod. Quality	Unilateral and bilateral amputees; average ISS: 18.5	SF-36 (Low RE)	Rehabilitation	Inpatient rehabilitation use	78		age, gender, race, time of injury, education, injury severity score, head injury, neck injury, premorbid illness, amputation level, postamputation surgeries	Multivariate Logit Regression, Estimate, p-value	-0.004, 0.99	Not Significant
Pezzin, L. E., 2000	Mod. Quality	Unilateral and bilateral amputees; average ISS: 18.5	Return to Work (RTW)	Rehabilitation	Inpatient rehabilitation use	76		age, gender, race, time of injury, education, injury severity score, head injury, neck	Multivariate Logit Regression, Estimate, p-value	2.796, .09	Not Significant

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
								injury, premorbid illness, amputation level, postamputation surgeries			
Castillo, R. C., 2008	Mod. Quality	LEAP data	Improvement in Reciprocal Stair Climbing Pattern	Rehabilitation	PT Need (Physical Therapist Referral)	321	6 months	patient insurance status, educational level, preinjury fitness level, smoking history, self-efficacy for return to work, practical social support, severity of muscle injury, site and extent of bone injury, pain intensity, and impairment level at the first time point of the selected period.	Multivariate Logistic regression, OR, CI, p-value	0.44 (0.21-0.93), P<0.05	pts w/ unmet PT need (as referred by a Physical Therapist) has decreased odds of improvement compared to pts w/ met PT needs
Castillo, R. C., 2008	Mod. Quality	LEAP data	Improvement in Reciprocal Stair Climbing Pattern	Rehabilitation	PT Need (Physical Therapist Referral)	321	12 months	patient insurance status, educational level, preinjury fitness level, smoking history, self-efficacy for return to work, practical social support, severity of muscle injury, site and extent of	Multivariate Logistic regression, OR, CI	0.57 (0.34-1.22)	Not Significant

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
								bone injury, pain intensity, and impairment level at the first time point of the selected period.			
Castillo, R. C., 2008	Mod. Quality	LEAP data	Improvement in Reciprocal Stair Climbing Pattern	Rehabilitation	PT Need (Physical Therapist Referral)	321	24 months	patient insurance status, educational level, preinjury fitness level, smoking history, self-efficacy for return to work, practical social support, severity of muscle injury, site and extent of bone injury, pain intensity, and impairment level at the first time point of the selected period.	Multivariate Logistic regression, OR, CI, p-value	0.49 (0.20-0.96), P<0.05	pts w/ unmet PT need (as referred by a Physical Therapist) has decreased odds of improvement compared to pts w/ met PT needs
Castillo, R. C., 2008	Mod. Quality	LEAP data	Improvement in Reciprocal Stair Climbing Pattern	Rehabilitation	PT Need (Orthopedic Surgeon Referral)	321	6 months	patient insurance status, educational level, preinjury fitness level, smoking history, self-efficacy for return to work, practical social support, severity of muscle injury,	Multivariate Logistic regression, OR, CI	0.68 (0.31-1.35)	Not Significant

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
								site and extent of bone injury, pain intensity, and impairment level at the first time point of the selected period.			
Castillo, R. C., 2008	Mod. Quality	LEAP data	Improvement in Reciprocal Stair Climbing Pattern	Rehabilitation	PT Need (Orthopedic Surgeon Referral)	321	12 months	patient insurance status, educational level, preinjury fitness level, smoking history, self-efficacy for return to work, practical social support, severity of muscle injury, site and extent of bone injury, pain intensity, and impairment level at the first time point of the selected period.	Multivariate Logistic regression, OR, CI	0.65 (0.38-1.33)	Not Significant
Castillo, R. C., 2008	Mod. Quality	LEAP data	Improvement in Reciprocal Stair Climbing Pattern	Rehabilitation	PT Need (Orthopedic Surgeon Referral)	321	24 months	patient insurance status, educational level, preinjury fitness level, smoking history, self-efficacy for return to work, practical social support, severity	Multivariate Logistic regression, OR, CI	0.88 (0.45-1.70)	Not Significant

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
								of muscle injury, site and extent of bone injury, pain intensity, and impairment level at the first time point of the selected period.			
Castillo, R. C., 2008	Mod. Quality	LEAP data	Improvement in Gait Deviations While Walking	Rehabilitation	PT Need (Physical therapist Referral)	321	12 months	patient insurance status, educational level, preinjury fitness level, smoking history, self-efficacy for return to work, practical social support, severity of muscle injury, site and extent of bone injury, pain intensity, and impairment level at the first time point of the selected period.	Multivariate Logistic regression, OR, CI, p-value	0.54 (0.34-0.96), P<0.05	pts w/ unmet PT need (as referred by a Physical Therapist) has decreased odds of improvement compared to pts w/ met PT needs
Castillo, R. C., 2008	Mod. Quality	LEAP data	Improvement in Gait Deviations While Walking	Rehabilitation	PT Need (Physical therapist Referral)	321	24 months	patient insurance status, educational level, preinjury fitness level, smoking history, self-efficacy for return to work, practical social	Multivariate Logistic regression, OR, CI, p-value	0.37 (0.20-0.86), P<0.05	pts w/ unmet PT need (as referred by a Physical Therapist) has decreased odds of

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
								support, severity of muscle injury, site and extent of bone injury, pain intensity, and impairment level at the first time point of the selected period.			improvement compared to pts w/ met PT needs
Castillo, R. C., 2008	Mod. Quality	LEAP data	Improvement in Gait Deviations While Walking	Rehabilitation	PT Need (Orthopedic Surgeon Referral)	321	12 months	patient insurance status, educational level, preinjury fitness level, smoking history, self-efficacy for return to work, practical social support, severity of muscle injury, site and extent of bone injury, pain intensity, and impairment level at the first time point of the selected period.	Multivariate Logistic regression, OR, CI	0.71 (0.46-1.87)	Not Significant
Castillo, R. C., 2008	Mod. Quality	LEAP data	Improvement in Gait Deviations While Walking	Rehabilitation	PT Need (Orthopedic Surgeon Referral)	321	24 months	patient insurance status, educational level, preinjury fitness level, smoking history, self-efficacy for return to work,	Multivariate Logistic regression, OR, CI	0.48 (0.35-1.18)	Not Significant

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
								practical social support, severity of muscle injury, site and extent of bone injury, pain intensity, and impairment level at the first time point of the selected period.			
Castillo, R. C., 2008	Mod. Quality	LEAP data	Improvement in Maximum Walking Speed	Rehabilitation	PT Need (Physical therapist Referral)	321	6 months	patient insurance status, educational level, preinjury fitness level, smoking history, self-efficacy for return to work, practical social support, severity of muscle injury, site and extent of bone injury, pain intensity, and impairment level at the first time point of the selected period.	Multivariate Logistic regression, OR, CI, p-value	0.45 (0.24-0.92), P<0.05	pts w/ unmet PT need (as referred by a Physical Therapist) has decreased odds of improvement compared to pts w/ met PT needs
Castillo, R. C., 2008	Mod. Quality	LEAP data	Improvement in Maximum Walking Speed	Rehabilitation	PT Need (Physical therapist Referral)	321	12 months	patient insurance status, educational level, preinjury fitness level, smoking history, self-efficacy for	Multivariate Logistic regression, OR, CI, p-value	0.52 (0.25-0.97), P<0.05	pts w/ unmet PT need (as referred by a Physical Therapist) has

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
								return to work, practical social support, severity of muscle injury, site and extent of bone injury, pain intensity, and impairment level at the first time point of the selected period.			decreased odds of improvement compared to pts w/ met PT needs
Castillo, R. C., 2008	Mod. Quality	LEAP data	Improvement in Maximum Walking Speed	Rehabilitation	PT Need (Physical therapist Referral)	321	24 months	patient insurance status, educational level, preinjury fitness level, smoking history, self-efficacy for return to work, practical social support, severity of muscle injury, site and extent of bone injury, pain intensity, and impairment level at the first time point of the selected period.	Multivariate Logistic regression, OR, CI, p-value	0.39 (0.15-0.85), P<0.01	pts w/ unmet PT need (as referred by a Physical Therapist) has decreased odds of improvement compared to pts w/ met PT needs
Castillo, R. C., 2008	Mod. Quality	LEAP data	Improvement in Maximum Walking Speed	Rehabilitation	PT Need (Orthopedic Surgeon Referral)	321	6 months	patient insurance status, educational level, preinjury fitness level, smoking history, self-	Multivariate Logistic regression, OR, CI	0.69 (0.29-1.38)	Not Significant

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
								efficacy for return to work, practical social support, severity of muscle injury, site and extent of bone injury, pain intensity, and impairment level at the first time point of the selected period.			
Castillo, R. C., 2008	Mod. Quality	LEAP data	Improvement in Maximum Walking Speed	Rehabilitation	PT Need (Orthopedic Surgeon Referral)	321	12 months	patient insurance status, educational level, preinjury fitness level, smoking history, self-efficacy for return to work, practical social support, severity of muscle injury, site and extent of bone injury, pain intensity, and impairment level at the first time point of the selected period.	Multivariate Logistic regression, OR, CI	0.94 (0.57-1.79)	Not Significant
Castillo, R. C., 2008	Mod. Quality	LEAP data	Improvement in Maximum	Rehabilitation	PT Need (Orthopedic Surgeon Referral)	321	24 months	patient insurance status, educational level, preinjury fitness level, smoking history,	Multivariate Logistic regression, OR, CI	0.90 (0.44-2.04)	Not Significant

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
			Walking Speed					self-efficacy for return to work, practical social support, severity of muscle injury, site and extent of bone injury, pain intensity, and impairment level at the first time point of the selected period.			
Blair, J. A., 2014	Low Quality	service members w/ below the knee injury	Return to Duty	Return to Run	Return to Run and Intrepid Dynamic Exoskeletal Orthosis (IDEO)	235		age, military rank, rtr	Multivariate Logistic regression, OR, CI, p-value	7.96 (2.20-28.83), 0.0001	Return to run and IDEO results in increased odds of RTD compared to IDEO only

Section 5. Health Scores

PICO 1

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
Asensio, J. A., 2006	Low Quality	pts w/ femoral vessel injury	Mortality	Health Score	Glasgow Coma Scale <8	204	ISS, glasgow coma scale, age, coagulopathy, >=2 known hard vascular signs	Multivariate Logistic Regression; OR, CI, P-value	13.0 (2.4-83.6), 0.004	Pts with Glasgow coma scale <8 have higher odds of mortality
Asensio, J. A., 2006	Low Quality	pts w/ femoral vessel injury	Mortality	Health Scores	ISS >25	204	ISS, glasgow coma scale, age, coagulopathy, >=2 known hard vascular signs	Multivariate Logistic Regression; OR, CI, P-value	22.4 (5.2-125.7), <0.0001	Pts with a ISS >25 have higher odds of mortality

PICO2

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follo w-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
MacKenzie, E. J., 2006	High Quality	LEAP Data; Unilateral injuries; motor vehicle primary mechanism of injury	Return to Work (RTW)	Health Scores	3 Month physical SIP score	423	84 mon.	P-amp score, treatment, age, gender, race, education, smoking status, invovment w/ legal system, self efficacy, job tenure, job involvement, 3-month VAS pain, 3-month physical SIP score	Proportional Hazards regression, RR, CI	0.97 (0.96-0.98)	3 Month physical SIP score decreases risk of RTW
MacKenzie, E. J., 2004	Mod. Quality	All pts unilateral lower limb amputation, most injuries from motor vehicle accident	Physical Function of SIP	Health Scores	Injury Severity Score	124		level of amputation, age, education, insurance, income, smoking status, chronic medical conditions, injury severity score, ipsilateral injury, self-efficacy	Multivariate Logistic regression, percent difference, p-value	16.9, 0.16	Not Significant
MacKenzie, E. J., 2004	Mod. Quality	All pts unilateral lower limb amputation, most injuries from motor vehicle accident	Psychosocial Function of SIP	Health Scores	Injury Severity Score	124		level of amputation, age, education, insurance, income, smoking status, chronic medical conditions,	Multivariate Logistic regression, percent difference, p-value	29.7, 0.12	Not Significant

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
								injury severity score, ipsilateral injury, self-efficacy			
MacKenzie, E. J., 2004	Mod. Quality	All pts unilateral lower limb amputation, most injuries from motor vehicle accident	Walking speed (>=4 ft/sec)	Health Scores	Injury Severity Score	124		level of amputation, age, education, insurance, income, smoking status, chronic medical conditions, injury severity score, ipsilateral injury, self-efficacy	Multivariate Logistic regression, OR, p-value	0.39, 12	Not Significant
MacKenzie, E. J., 2004	Mod. Quality	All pts unilateral lower limb amputation, most injuries from motor vehicle accident	Overall Sickness impact Profile (SIP)	Health Scores	Injury Severity Score	124		level of amputation, age, education, insurance, income, smoking status, chronic medical conditions, injury severity score, ipsilateral injury, self-efficacy	Multivariate Logistic regression, percent difference, p-value	19.5, 0.13	Not Significant
Low, E. E., 2017	Low Quality	pts w/ any lower extremity amputation	Post-surgical Complications	Health Scores	Injury Severity Score (ISS)	2314		ISS, age, time to initial procedure, neurovascular injury, compartment syndrome,	Multivariate Logistic regression, OR, CI, p-value	1.058 (1.05-1.066), <0.0001	Increase in ISS results in increased odds of post-surgical

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
								hospital teaching status, race			complications
Low, E. E., 2017	Low Quality	pts w/ any lower extremity amputation	Amputation Revision	Health Scores	Injury Severity Score (ISS)	2314		ISS, age, crush fracture, compartment syndrome, major post-surgical complication, fracture type, hospital teaching status	Multivariate Logistic regression, OR, CI, p-value	1.015 (1.008-1.022), <0.0001	ISS results in increased odds of amputation revision
Low, E. E., 2017	Low Quality	pts w/ any lower extremity amputation	Length of Hospitalization	Health Scores	Injury Severity Score (ISS)	2314		ISS, time to procedure, age, compartment syndrome, hospital teaching status, race, gender	Multivariate Logistic regression, parameter estimate, CI, p-value	0.4796 (0.4255-0.5338), <0.0001	ISS is a significant predictor of length of hospitalization
Melcer, T., 2017	Low Quality	military-related unilateral lower limb trauma	DVT/PE	Health Scores	ISS (log)	625		age, log ISS, mechanism of injury, injury year, injury location, preinjury psychological diagnosis	Multivariate Logistic regression, OR, CI	1.43(1.15-1.77)	ISS results in increased odds of DVT/PE
Melcer, T., 2017	Low Quality	military-related unilateral lower limb trauma	Any Musculoskeletal complications	Health Scores	ISS (log)	625		age, log ISS, mechanism of injury, injury year, injury location, preinjury	Multivariate Logistic regression, OR, CI	1.23 (1.05-1.44)	ISS results in increased odds of musculoskeletal

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
								psychological diagnosis			complications
Melcer, T., 2017	Low Quality	military-related unilateral lower limb trauma;	Pain	Health Scores	ISS (log)	625		age, log ISS, mechanism of injury, injury year, injury location, preinjury psychological diagnosis	Multivariate Logistic regression, OR, CI	NS	Not Significant
Melcer, T., 2017	Low Quality	military-related unilateral lower limb trauma;	Osteoarthritis	Health Scores	ISS (log)	625		age, log ISS, mechanism of injury, injury year, injury location, preinjury psychological diagnosis	Multivariate Logistic regression, OR, CI	NS	Not Significant
Melcer, T., 2017	Low Quality	military-related unilateral lower limb trauma;	Osteoporosis	Health Scores	ISS (log)	625		age, log ISS, mechanism of injury, injury year, injury location, preinjury psychological diagnosis	Multivariate Logistic regression, OR, CI	NS	Not Significant
Melcer, T., 2017	Low Quality	military-related unilateral lower limb trauma;	Any infection	Health Scores	ISS (log)	625		age, log ISS, mechanism of injury, injury year, injury location, preinjury psychological diagnosis	Multivariate Logistic regression, OR, CI	1.34 (1.16-1.54)	ISS results in increased odds of any infection

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
Melcer, T., 2017	Low Quality	military-related unilateral lower limb trauma;	Osteomyelitis	Health Scores	ISS (log)	625		age, log ISS, mechanism of injury, injury year, injury location, preinjury psychological diagnosis	Multivariate Logistic regression, OR, CI	1.43 (1.15-1.77)	ISS results in increased odds of osteomyelitis
Melcer, T., 2017	Low Quality	military-related unilateral lower limb trauma;	Nonhealing wounds	Health Scores	ISS (log)	625		age, log ISS, mechanism of injury, injury year, injury location, preinjury psychological diagnosis	Multivariate Logistic regression, OR, CI	1.50 (1.22-1.85)	ISS results in increased odds of nonhealing wounds
Melcer, T., 2013	Low Quality	military-related lower limb injury	Anemia	Health Scores	ISS (log)	772		age, log ISS, mechanism of injury (blast or nonblast), injury year (2001Y2005 or 2006Y2008), injury location (above the knee or below the knee), or preinjury psychological diagnosis.	Multivariate Logistic regression, OR, CI	1.60 (1.16-2.20)	ISS is associated with increased odds of anemia
Melcer, T., 2013	Low Quality	military-related lower limb injury	Any Infection	Health Scores	ISS (log)	772		age, log ISS, mechanism of injury (blast or nonblast), injury year	Multivariate Logistic regression, OR, CI	2.17 (1.54-3.06)	ISS is associated with increased odds of

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
								(2001Y2005 or 2006Y2008), injury location (above the knee or below the knee), or preinjury psychological diagnosis.			any infection
Melcer, T., 2013	Low Quality	military-related lower limb injury	Cellulitis	Health Scores	ISS (log)	772		age, log ISS, mechanism of injury (blast or nonblast), injury year (2001Y2005 or 2006Y2008), injury location (above the knee or below the knee), or preinjury psychological diagnosis.	Multivariate Logistic regression, OR, CI	1.86 (1.26-2.73)	ISS is associated with increased odds of cellulitis
Melcer, T., 2013	Low Quality	military-related lower limb injury	Osteomyelitis	Health Scores	ISS (log)	772		age, log ISS, mechanism of injury (blast or nonblast), injury year (2001Y2005 or 2006Y2008), injury location (above the knee or below the knee), or preinjury	Multivariate Logistic regression, OR, CI	1.52 (1.05-2.19)	ISS is associated with increased odds of osteomyelitis

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
								psychological diagnosis.			
Melcer, T., 2013	Low Quality	military-related lower limb injury	Heterotopic Ossification	Health Scores	ISS (log)	772		age, log ISS, mechanism of injury (blast or nonblast), injury year (2001Y2005 or 2006Y2008), injury location (above the knee or below the knee), or preinjury psychological diagnosis.	Multivariate Logistic regression, OR, CI	2.32 (1.26-4.28)	ISS is associated with increased odds of heterotopic ossification
Gaunaurd, I. A., 2013	Low Quality	servicemembers with traumatic lower limb loss (Unilateral transfemoral amputation)	Comprehensive High-Level Activity Mobility Predictor (CHAMP)	Health Scores	NISS	32		waist circumference, prosthetic, NISS, sit down (AMPPro 13)	Stepwise regression analysis, parameter estimate, p-value	-0.16, 0.03	NISS in pts w/ TFA is associated with lower CHAMP score
Pezzin, L. E., 2000	Mod. Quality	Unilateral and bilateral amputees; average ISS: 18.5	SF-36 (Low PCS)	Health Scores	Overall Injury Severity Score	78		age, gender, race, time of injury, education, injury severity score, head injury, neck injury, premorbid illness, amputation	Multivariate Logit Regression, Estimate, p-value	0.462, 0.02	Overall Injury Severity Score results in increased odds of Low PCS

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
								level, postamputation surgeries			
Pezzin, L. E., 2000	Mod. Quality	Unilateral and bilateral amputees; average ISS: 18.5	SF-36 (Low RP)	Health Scores	Overall Injury Severity Score	78		age, gender, race, time of injury, education, injury severity score, head injury, neck injury, premorbid illness, amputation level, postamputation surgeries	Multivariate Logit Regression, Estimate, p-value	0.227, 0.01	Overall Injury Severity Score results in increased odds of Low RP
Pezzin, L. E., 2000	Mod. Quality	Unilateral and bilateral amputees; average ISS: 18.5	SF-36 (Low BP)	Health Scores	Overall Injury Severity Score	78		age, gender, race, time of injury, education, injury severity score, head injury, neck injury, premorbid illness, amputation level, postamputation surgeries	Multivariate Logit Regression, Estimate, p-value	0.047, 0.38	Not Significant
Pezzin, L. E., 2000	Mod. Quality	Unilateral and bilateral amputees;	SF-36 (Low VT)	Health Scores	Overall Injury Severity Score	78		age, gender, race, time of injury, education,	Multivariate Logit Regression,	0.090, 0.05	Overall Injury Severity Score

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
		average ISS: 18.5						injury severity score, head injury, neck injury, premorbid illness, amputation level, postamputation surgeries	Estimate, p-value		results in increased odds of Low VT
Pezzin, L. E., 2000	Mod. Quality	Unilateral and bilateral amputees; average ISS: 18.5	SF-36 (Low RE)	Health Scores	Overall Injury Severity Score	78		age, gender, race, time of injury, education, injury severity score, head injury, neck injury, premorbid illness, amputation level, postamputation surgeries	Multivariate Logit Regression, Estimate, p-value	-0.023, 0.66	Not Significant
Pezzin, L. E., 2000	Mod. Quality	Unilateral and bilateral amputees; average ISS: 18.5	Return to Work (RTW)	Health Scores	Overall Injury Severity Score	76		age, gender, race, time of injury, education, injury severity score, head injury, neck injury, premorbid illness, amputation	Multivariate Logit Regression, Estimate, p-value	0.050, 0.25	Not Significant

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
								level, postamputation surgeries			
Ly, T. V., 2008	Mod. Quality	LEAP data	Sickness impact Profile (SIP)	Health Scores	Limb Salvage Index (LSI)	407	6 mon.	age	Multiple Linear Regression	NS	Not Significant
Ly, T. V., 2008	Mod. Quality	LEAP data	Sickness impact Profile (SIP)	Health Scores	Limb Salvage Index (LSI)	407	24 mon.	age	Multiple Linear Regression	NS	Not Significant
Ly, T. V., 2008	Mod. Quality	LEAP data	Sickness impact Profile (SIP)	Health Scores	Mangled extremity severity score (MESS)	407	6 mon.	age	Multiple Linear Regression	NS	Not Significant
Ly, T. V., 2008	Mod. Quality	LEAP data	Sickness impact Profile (SIP)	Health Scores	Mangled extremity severity score (MESS)	407	24 mon.	age	Multiple Linear Regression	NS	Not Significant
Ly, T. V., 2008	Mod. Quality	LEAP data	Sickness impact Profile (SIP)	Health Scores	Predictive Salvage Index (PSI)	407	6 mon.	age	Multiple Linear Regression	NS	Not Significant
Ly, T. V., 2008	Mod. Quality	LEAP data	Sickness impact Profile (SIP)	Health Scores	Predictive Salvage Index (PSI)	407	24 mon.	age	Multiple Linear Regression	NS	Not Significant

Section 6. Insensate/Nerve Injury

Regression Insensate/Nerve Injury Data

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
Bennett, P. M., 2018	Low Quality	Military foot and ankle fractures; median NISS score 12 for all groups	AAOS F&A Score	Insensate/Nerve Injuries	Nerve injury	77		Negative Bohler's angle, coexisting talal and calcaneal fracture, coexisting plafond fracture, coexisting mid-foot fracture, open fracture, nerve injury, vascular injury	Multivariate Linear Regression	NS	Not Significant
Low, E. E., 2017	Low Quality	pts w/ any lower extremity amputation	Post-surgical Complications	Vascular Injury	Neurovascular Injury	2314		ISS, age, time to initial procedure, neurovascular injury, compartment syndrome, hospital teaching status, race	Multivariate Logistic regression, OR, CI, p-value	1.353 (1.088-1.683), 0.0065	Neurovascular Injury results in increased odds of post-surgical complications

Continuous Insensate/Nerve Injury Data

Reference	Quality	Outcome Details	Follow-up Time	N(1)	N(2)	Treatment Details(1)	Treatment Details(2)	Statistic	Mean (SD) 1	Mean (SD) 2	Result	Significance
Bosse, M. J., 2005	Mod. Quality	Mean AMA Range of Motion Score	12 months	24	25	Insensate Salvage Group	Sensate Control Group (Salvage)	Mean Dif	0.34 (0.21)	0.3 (0.27)	0.04 (-0.1-0.18)	Not Significant
Bosse, M. J., 2005	Mod. Quality	Mean AMA Range of Motion Score	24 months	19	22	Insensate Salvage Group	Sensate Control Group (Salvage)	Mean Dif	0.27 (0.25)	0.28 (0.29)	-0.01 (-0.18-0.16)	Not Significant
Bosse, M. J., 2005	Mod. Quality	Mean Visual Pain Score	12 months	24	25	Insensate Salvage Group	Sensate Control Group (Salvage)	Mean Dif	24.5 (22.1)	25.9 (22)	-1.4 (-13.75-10.95)	Not Significant
Bosse, M. J., 2005	Mod. Quality	Mean Visual Pain Score	24 months	19	22	Insensate Salvage Group	Sensate Control Group (Salvage)	Mean Dif	30.5 (28.6)	31.7 (23.2)	-1.2 (-17.3-14.9)	Not Significant
Bosse, M. J., 2005	Mod. Quality	SIP - Physical	12 months	24	25	Insensate Salvage Group	Sensate Control Group (Salvaged)	Mean Dif	9.7 (8.9)	10.2 (9.4)	-0.5 (-5.62-4.62)	Not Significant
Bosse, M. J., 2005	Mod. Quality	SIP - Physical	24 minutes	19	22	Insensate Salvage Group	Sensate Control Group (Salvaged)	Mean Dif	8.8 (9.5)	8.6 (7.8)	0.2 (-5.17-5.57)	Not Significant
Bosse, M. J., 2005	Mod. Quality	SIP - Psychosocial	12 months	24	25	Insensate Salvage Group	Sensate Control Group (Salvaged)	Mean Dif	10.7 (15.1)	8.5 (9.6)	2.2 (-4.92-9.32)	Not Significant
Bosse, M. J., 2005	Mod. Quality	SIP - Psychosocial	24 months	19	22	Insensate Salvage Group	Sensate Control Group (Salvaged)	Mean Dif	10.9 (15.6)	5.8 (9.6)	5.1 (-2.98-13.18)	Not Significant

Reference	Quality	Outcome Details	Follow-up Time	N(1)	N(2)	Treatment Details(1)	Treatment Details(2)	Statistic	Mean (SD) 1	Mean (SD) 2	Result	Significance
Bosse, M. J., 2005	Mod. Quality	SIP - Work	12 months	24	25	Insensate Salvage Group	Sensate Control Group (Salvaged)	Mean Dif	34.8 (32.7)	44.2 (31)	-9.4 (-27.26-8.46)	Not Significant
Bosse, M. J., 2005	Mod. Quality	SIP - Work	24 months	19	22	Insensate Salvage Group	Sensate Control Group (Salvaged)	Mean Dif	38.1 (31.4)	41.6 (33.7)	-3.5 (-23.44-16.44)	Not Significant
Bosse, M. J., 2005	Mod. Quality	SIP Score - Overall	12 months	24	25	Insensate Salvage Group	Sensate Control Group (Salvaged)	Mean Dif	12.3 (11.8)	11.9 (9)	0.4 (-5.49-6.29)	Not Significant
Bosse, M. J., 2005	Mod. Quality	SIP Score - Overall	24 months	19	22	Insensate Salvage Group	Sensate Control Group (Salvaged)	Mean Dif	11.6 (11.4)	9.6 (7.6)	2 (-4.03-8.03)	Not Significant

Dichotomous Insensate/Nerve Injury Data

Reference	Quality	Treatment (1)	Treatment (2)	Outcome	Follow-up Time	N(1)	N(2)	Statistic	Percent Events (1)	Percent Events (2)	Result	Significance
Bosse, M. J., 2005	Mod. Quality	Insensate Salvage Group	Sensate Control Group (Salvage)	Patients full weight-bearing	12 months	24	25	Odds Ratio	0.875	0.68	3.29 (0.76-14.37)	Not Significant
Bosse, M. J., 2005	Mod. Quality	Insensate Salvage Group	Sensate Control Group (Salvaged)	Percentage of pts returning to work (among those working before injury)	12 months	19	23	Odds Ratio	0.316	0.348	0.87 (0.24-3.15)	Not Significant
Bosse, M. J., 2005	Mod. Quality	Insensate Salvage Group	Sensate Control Group (Salvaged)	Pts able to climb and descend stairs reciprocally	12 months	24	25	Odds Ratio	0.542	0.4	1.77 (0.57-5.51)	Compared to amputation there were more pts climbing stairs in the ins. salvage group
Bosse, M. J., 2005	Mod. Quality	Insensate Salvage Group	Sensate Control Group (Salvage)	Patients with immobilization device	12 months	24	25	Odds Ratio	0.292	0.6	0.27 (0.08-0.9)	Ins. Salvage group had significantly less pts using immobilization devices compared to amputation
Bosse, M. J., 2005	Mod. Quality	Insensate Salvage Group	Sensate Control Group (Salvaged)	Patients using walking aid	12 months	24	25	Odds Ratio	0.375	0.4	0.9 (0.28-2.84)	Compared to amputation there were less pts

Reference	Quality	Treatment (1)	Treatment (2)	Outcome	Follow-up Time	N(1)	N(2)	Statistic	Percent Events (1)	Percent Events (2)	Result	Significance
												using walking aids in ins. salvage group
Bosse, M. J., 2005	Mod. Quality	Insensate Salvage Group	Sensate Control Group (Salvaged)	Pts able to climb and descend stairs reciprocally	24 months	19	22	Odds Ratio	0.579	0.727	0.52 (0.14-1.91)	Not Significant
Bosse, M. J., 2005	Mod. Quality	Insensate Salvage Group	Sensate Control Group (Salvage)	Patients with immobilization device	24 months	19	22	Odds Ratio	0.211	0.455	0.32 (0.08-1.28)	Ins. Salvage group had significantly less pts using immobilization devices compared to amputation
Bosse, M. J., 2005	Mod. Quality	Insensate Salvage Group	Sensate Control Group (Salvaged)	Patients using walking aid	24 months	19	22	Odds Ratio	0.158	0.273	0.5 (0.11-2.35)	Not Significant
Bosse, M. J., 2005	Mod. Quality	Insensate Salvage Group	Sensate Control Group (Salvage)	Patients full weight-bearing	24 months	19	22	Risk Difference	1	0.91	0.09 (-0.03-0.21)	Not Significant
Bosse, M. J., 2005	Mod. Quality	Insensate Salvage Group	Sensate Control Group (Salvaged)	Percentage of pts returning to work (among those working before injury)	24 months	18	21	Odds Ratio	0.56	0.524	1.14 (0.32-4.02)	Not Significant

Reference	Quality	Treatment (1)	Treatment (2)	Outcome	Follow-up Time	N(1)	N(2)	Statistic	Percent Events (1)	Percent Events (2)	Result	Significance
Bosse, M. J., 2005	Mod. Quality	Insensate Salvage Group	Sensate Control Group (Salvage)	Foot sensation at 24 months - Amputated	24 months	19	20	Odds Ratio	0.17	0.2	0.75 (0.14-3.9)	Not Significant
Bosse, M. J., 2005	Mod. Quality	Insensate Salvage Group	Sensate Control Group (Salvage)	Foot sensation at 24 months - Normal	24 months	19	20	Odds Ratio	0.57	0.55	1.13 (0.32-3.99)	Not Significant
Bosse, M. J., 2005	Mod. Quality	Insensate Salvage Group	Sensate Control Group (Salvage)	Foot sensation at 24 months - Impaired	24 months	19	20	Odds Ratio	0.22	0.25	0.8 (0.18-3.57)	Not Significant
Bosse, M. J., 2005	Mod. Quality	Insensate Salvage Group	Sensate Control Group (Salvage)	Foot sensation at 24 months - Absent	24 months	19	20	Risk Difference	0.06	0	0.05 (-0.05-0.15)	Not Significant

Section 7. Crushed/Blunt Injury

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
Hutchison, T. N., 2014	Low Quality	Military-related amputees; avg age 23, IED most common mechanism of injury	Pulmonary embolism (PE)	Crushed Injury	Blunt injury	1003		OEF, blunt injury, multiple amputations, transfemoral amputation, ISS, abdomen AIS, extremity AIS	Multivariate Logistic regression, OR, CI, p-value	2.33 (0.78-4.17), 0.0052	Blunt injury results in increased odds of PE
Melton, S. M., 1997	Low Quality	Amputee who had popliteal artery trauma; avg age = 32; mean ISS = 10.	Secondary Amputation	Crushed Injury	Blunt injury	14		age, blunt injury, vein injury, mess, heparin/urokinase	Logistic Regresison; OR, P-value	4.03, 0.06	Not Significant
Low, E. E., 2017	Low Quality	pts w/ any lower extremity amputation	Amputation Revision	Crushed Injury	Crush Fracture	2314		ISS, age, crush fracture, compartment sysndrome, major post-surgical complication, fracture type, hospital teaching status	Multivariate Logistic regression, OR, CI, p-value	1.365 (1.077-1.73), 0.0101	Crush fracture results in increased odds of amputation revision

Section 8. Physiologic Viability

PICO 1

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
Asensio, J. A., 2006	Low Quality	pts w/ femoral vessel injury	Mortality	Physiologic Viability	Coagulopathy in OR	204	ISS, glasgow coma scale, age, coagulopathy, >=2 known hard vascular signs	Multivariate Logistic Regression; OR, CI, P-value	8.3 (1.8-42.3), 0.007	Pts with coagulopathy have higher odds of mortality
Asensio, J. A., 2006	Low Quality	pts w/ femoral vessel injury	Mortality	Physiologic Viability	No of hard vascular signs >=2	204	ISS, glasgow coma scale, age, coagulopathy, >=2 known hard vascular signs	Multivariate Logistic Regression; OR, CI, P-value	8.1 (1.5-68.2), 0.029	Pts with >=2 hard vascular signs have higher odds of mortality

PICO 2

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
Doucet, J. J., 2011	Low Quality	Military group; open fractures; Group analyzed in regression were those with attempted salvage	Failure of limb salvage	Physiologic Viability	Limb ischemia	82		components of the MESS score (skeletal/soft tissue injury, limb ischemia, shock, age), G–A classification, mechanism, and transfusions	Multivariate Logistic Regression, P-value	p<0.001	Limb ischemia was predictive of failure of limb salvage
Doucet, J. J., 2011	Low Quality	Military group; open fractures; Group analyzed in regression were those with attempted salvage	Failure of limb salvage	Physiologic Viability	Shock (described in text as components of the MESS score, other than ischemia)	82		components of the MESS score (skeletal/soft tissue injury, limb ischemia, shock, age), G–A classification, mechanism, and transfusions	Multivariate Logistic Regression	NS	Not Significant

Section 9. Comorbidities

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
Gaunaurd, I. A., 2013	Low Quality	servicemembers with traumatic lower limb loss (Unilateral transtibial amputation)	Comprehensive High-Level Activity Mobility Predictor (CHAMP)	Comorbidities	Central Adiposity (Waist Circumference)	60		descend stairs (AMPPro 20b), ascend stairs (AMPPro 20a), waist circumference, prosthetic, ankle/foot assembly, time since amputation	Stepwise regression analysis, parameter estimate, p-value	-0.34, 0.01	Waist circumference in pts w/ TTA is associated with lower CHAMP score
Gaunaurd, I. A., 2013	Low Quality	servicemembers with traumatic lower limb loss (Unilateral transfemoral amputation)	Comprehensive High-Level Activity Mobility Predictor (CHAMP)	Comorbidities	Central Adiposity (Waist Circumference)	32		waist circumference, prosthetic, NISS, sit down (AMPPro 13)	Stepwise regression analysis, parameter estimate, p-value	-0.46, 0.03	Waist circumference in pts w/ TFA is associated with lower CHAMP score
Gaunaurd, I. A., 2013	Low Quality	servicemembers with traumatic lower limb loss (Bilateral lower limb loss)	Comprehensive High-Level Activity Mobility Predictor (CHAMP)	Comorbidities	Central Adiposity (Waist Circumference)	32		Number of intact knee joint, descend stairs (AMPPro 20b), Standing reach (AMPPro 9), waist circumference	Stepwise regression analysis, parameter estimate, p-value	0.31, 0.004	Waist circumference in pts w/ BLLA is associated with higher CHAMP score

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
Jain, A., 2013	Low Quality	pts w/ non-salvageable lower limb injuries	Infection in Residual Limb	Comorbidities	Diabetes	40		>1 debridement, amputation>5 days post injury, ischaemic vascular injury/multi-planar degloving, above-knee amputation, tertiary referral, smoker, diabetes	Multivariate Logistic Regression, OR, CI, p-value	0.4 (0.1-2.5)	Not Significant
O'Toole, R. V., 2008	High Quality	LEAP data; limb-threatening lower-extremity injures	Patient Satisfaction	Comorbidities	Medical comorbidities (does not specify)	463	2 years	age, gender, education, poverty status, race, insurance, personality profile, medical comorbidites, preinjury work status, preinjury job type, mechanism of injury, open fracture type, severity of bone or skin damage, severity of nerve damage, reconstruction or amputation, timing of initial debridement, timing of	Multivariate logistic regression, p-value	p>0.2	Not Significant

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
								admission, timing of definite soft tissue coverage, return to work, SIP, walking speed, pain intensity, major complication, less anxiety			
Laferrier, J. Z., 2010	Low Quality	Vietnam service members w/ lower limb loss	Wheelchair use	Comorbidities	Number of comorbidities	245		age, sex, race, weight gain, pain, mental health, QoL, prosthetic device satisfaction, health status, stroke, PTSD, TBI, phantom limb, # of surgeries, type of prosthetic, multiple-limb loss, bilateral limb-loss, comorbidities, ambulatory, highly active	Multivariate Logistic regression, OR, CI, p-value	1.29 (1.15-1.46), <0.001	Number of comorbidites results in increased odds of wheelchair use
Pezzin, L. E., 2000	Mod. Quality	Unilateral and bilateral amputees; average ISS: 18.5	SF-36 (Low PCS)	Comorbidities	Premorbid Illness	78		age, gender, race, time of injury, education, injury severity score, head	Multivariate Logit Regression, Estimate, p-value	3.059, 0.20	Not Significant

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
								injury, neck injury, premorbid illness, amputation level, postamputation surgeries			
Pezzin, L. E., 2000	Mod. Quality	Unilateral and bilateral amputees; average ISS: 18.5	SF-36 (Low RP)	Comorbidities	Premorbid Illness	78		age, gender, race, time of injury, education, injury severity score, head injury, neck injury, premorbid illness, amputation level, postamputation surgeries	Multivariate Logit Regression, Estimate, p-value	2.671, 0.06	Not Significant
Pezzin, L. E., 2000	Mod. Quality	Unilateral and bilateral amputees; average ISS: 18.5	SF-36 (Low BP)	Comorbidities	Premorbid illness	78		age, gender, race, time of injury, education, injury severity score, head injury, neck injury, premorbid illness, amputation level,	Multivariate Logit Regression, Estimate, p-value	0.417, 0.67	Not Significant

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
								postamputation surgeries			
Pezzin, L. E., 2000	Mod. Quality	Unilateral and bilateral amputees; average ISS: 18.5	SF-36 (Low VT)	Comorbidities	Premorbid Illness	78		age, gender, race, time of injury, education, injury severity score, head injury, neck injury, premorbid illness, amputation level, postamputation surgeries	Multivariate Logit Regression, Estimate, p-value	0.523, 0.56	Not Significant
Pezzin, L. E., 2000	Mod. Quality	Unilateral and bilateral amputees; average ISS: 18.5	SF-36 (Low RE)	Comorbidities	Premorbid Illness	78		age, gender, race, time of injury, education, injury severity score, head injury, neck injury, premorbid illness, amputation level, postamputation surgeries	Multivariate Logit Regression, Estimate, p-value	-1.748, 0.14	Not Significant
Pezzin, L. E., 2000	Mod. Quality	Unilateral and bilateral amputees; average ISS: 18.5	Return To Work (RTW)	Comorbidities	Premorbid Illness	76		age, gender, race, time of injury, education, injury severity	Multivariate Logit Regression, Estimate, p-value	-1.136, 0.28	Not Significant

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
								score, head injury, neck injury, premorbid illness, amputation level, postamputation surgeries			

Section 10. Vascular Injury

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
Jain, A., 2013	Low Quality	pts w/ non-salvageable lower limb injuries	Infection in Residual Limb	Vascular Injury	Ischaemic Vascular Injury	40		>1 debridement, amputation>5 days post injury, ischaemic vascular injury/multi-planar degloving, above-knee amputation, tertiary referral, smoker, diabetes	Multivariate Logistic Regression	NS	Not Significant
Stranix, J. T., 2017	Low Quality	pts w/ lower limb reconstruction	Complications	Vascular Injury	Decrease in no. of Patent Arteries in lower leg	361		age, sex, timing of flap, presence/absence of skin paddle, presence/absence bone gap, flap type, and number of veins	Multivariate Logistic regression, RR, p-value	1.33, 0.03	Decrease in no. of Patent Arteries is associated with higher risk of complications
Stranix, J. T., 2017	Low Quality	pts w/ lower limb reconstruction	Take-backs	Vascular Injury	Decrease in no. of Patent Arteries in lower leg	361		age, sex, timing of flap, presence/absence of skin paddle, presence/absence bone gap, flap type, and number of veins	Multivariate Logistic regression, RR, p-value	1.63, 0.007	Decrease in no. of Patent Arteries is associated with higher risk of take-backs
Stranix, J. T., 2017	Low Quality	pts w/ lower limb	Total Flap Failures	Vascular Injury	Decrease in no. of	361		age, sex, timing of flap,	Multivariate Logistic	1.54, 0.02	Decrease in no. of

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
		reconstruction			Patent Arteries in lower leg			presence/absence of skin paddle, presence/absence bone gap, flap type, and number of veins	regression, RR, p-value		Patent Arteries is associated with higher risk of an increase total flap failures
Bennett, P. M., 2018	Low Quality	Military foot and ankle fractures; median NISS score 12 for all groups	AAOS F&A Score	Vascular Injury	Vascular injury	77		Negative Bohler's angle, coexisting talal and calcaneal fracture, coexisting plafond fracture, coexisting mid-foot fracture, open fracture, nerve injury, vascular injury	Multivariate Linear Regression	NS	Not Significant
Melton, S. M., 1997	Low Quality	Amputee who had popliteal artery trauma; avg age = 32; mean ISS = 10.	Secondary Amputation	Vascular Injury	Vein injury	14		age, blunt injury, vein injury, mess, heparin/urokinase	Logistic Regresison; OR, P-value	3.82, 0.06	Not Significant

Section 11. Injury Type

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
Melcer, T., 2017	Low Quality	military-related unilateral lower limb trauma	Any Musculoskeletal complications	Other	Blast Injury	625		age, log ISS, mechanism of injury, injury year, injury location, preinjury psychological diagnosis	Multivariate Logistic regression, OR, CI	NS	Not Significant
Melcer, T., 2017	Low Quality	military-related unilateral lower limb trauma;	Pain	Other	Blast injury	625		age, log ISS, mechanism of injury, injury year, injury location, preinjury psychological diagnosis	Multivariate Logistic regression, OR, CI	1.88 (1.17-3.03)	Blast injury results in increased odds of pain
Melcer, T., 2017	Low Quality	military-related unilateral lower limb trauma;	Osteoarthritis	Other	Blast Injury	625		age, log ISS, mechanism of injury, injury year, injury location, preinjury psychological diagnosis	Multivariate Logistic regression, OR, CI	2.81 (1.08-7.32)	Blast injury results in increased odds of osteoarthritis
Melcer, T., 2017	Low Quality	military-related unilateral lower limb trauma;	Osteoporosis	Other	Blast injury	625		age, log ISS, mechanism of injury, injury year, injury location, preinjury psychological diagnosis	Multivariate Logistic regression, OR, CI	NS	Not Significant

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
Melcer, T., 2017	Low Quality	military-related unilateral lower limb trauma;	Any infection	Other	Blast injury	625		age, log ISS, mechanism of injury, injury year, injury location, preinjury psychological diagnosis	Multivariate Logistic regression, OR, CI	NS	Not Significant
Melcer, T., 2017	Low Quality	military-related unilateral lower limb trauma;	Osteomyelitis	Other	Blast Injury	625		age, log ISS, mechanism of injury, injury year, injury location, preinjury psychological diagnosis	Multivariate Logistic regression, OR, CI	NS	Not Significant
Melcer, T., 2017	Low Quality	military-related unilateral lower limb trauma;	Nonhealing wounds	Other	Blast injury	625		age, log ISS, mechanism of injury, injury year, injury location, preinjury psychological diagnosis	Multivariate Logistic regression, OR, CI	NS	Not Significant
Melcer, T., 2017	Low Quality	military-related unilateral lower limb trauma	DVT/PE	Other	Blast injury	625		age, log ISS, mechanism of injury, injury year, injury location, preinjury psychological diagnosis	Multivariate Logistic regression, OR, CI	NS	Not Significant
Aydemir, K., 2017	Low Quality	pts w/ traumatic etiology	Ultrasound abnormality	Other	Mine injury	147		age, disease duration,	Binary Logistic Regression,	2.34 (0.72-	Not Significant

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
								etiology, level of amputation,	OR, CI, p-value	7.59), 0.157	
Hutchison, T. N., 2014	Low Quality	Military-related amputees; avg age 23, IED most common mechanism of injury	Venous thromboembolism (VTE)	Other	Penetrating injury	1003		OEF, blunt injury, multiple amputations, transfemoral amputation, ISS, abdomen AIS, extremity AIS, head and neck AIS	Multivariate Logistic regression, OR, CI, p-value	3.23 (1.89-5.56), <0.0001	Penetrating injury results in increased odds of VTE

Section 12. Amputation/Salvage

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
Ellington, J. K., 2013	Low Quality	Severe open ankle and hindfoot injuries	Overall Sickness Impact Profile (SIP)	Salvation	Salvage	145	1 years	adjusted for probability of amputation	Multivariate Regression; Regression coefficient, P-value	-1.6, 0.6276	Not Significant
Ellington, J. K., 2013	Low Quality	Severe open ankle and hindfoot injuries	Overall Sickness Impact Profile (SIP)	Salvation	Salvage	131	2 years	adjusted for probability of amputation	Multivariate Regression; Regression coefficient, P-value	-3.1, 0.3353	Not Significant
Ellington, J. K., 2013	Low Quality	Severe open ankle and hindfoot injuries	Physical SIP	Salvation	Salvage	145	1 years	adjusted for probability of amputation	Multivariate Regression; Regression coefficient, P-value	-1.2, 0.6968	Not Significant
Ellington, J. K., 2013	Low Quality	Severe open ankle and hindfoot injuries	Physical SIP	Salvation	Salvage	131	2 years	adjusted for probability of amputation	Multivariate Regression; Regression coefficient, P-value	-0.8, 0.7838	Not Significant
Ellington, J. K., 2013	Low Quality	Severe open ankle and hindfoot injuries	Psychosocial SIP	Salvation	Salvage	131	2 years	adjusted for probability of amputation	Multivariate Regression; Regression coefficient, P-value	-5.3, 0.1964	Not Significant
Ellington, J. K., 2013	Low Quality	Severe open ankle and hindfoot injuries	Re-hospitalization	Salvation	Salvage	131	2 years	adjusted for probability of amputation	Multivariate Regression; Regression coefficient, P-value	0.3, 0.0911	Not Significant
Ellington, J. K., 2013	Low Quality	Severe open ankle and	Time to full weight bearing	Salvation	Salvage	131	2 years	adjusted for probability of amputation	Multivariate Regression; Regression	11.5, 0.0162	Salvage was significant

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
		hindfoot injuries							coefficient, P-value		ly associated with higher time to full weight bearing compared to amputation
Ellington, J. K., 2013	Low Quality	Severe open ankle and hindfoot injuries	Visual Pain	Salvation	Salvage	131	2 years	adjusted for probability of amputation	Multivariate Regression; Regression coefficient, P-value	2.2, 0.7592	Not Significant
Ellington, J. K., 2013	Low Quality	Severe open ankle and hindfoot injuries	Walking speed > 4 ft/s	Salvation	Salvage	131	2 years	adjusted for probability of amputation	Multivariate regression, CI	1.8 (0.5-6.5)	Not Significant
Ellington, J. K., 2013	Low Quality	Severe open ankle and hindfoot injuries	Back to work	Salvation	Salvage	131	2 years	adjusted for probability of amputation	Multivariate regression, CI	0.6 (0.2-1.9)	Not Significant
Ellington, J. K., 2013	Low Quality	Severe open ankle and hindfoot injuries	Psychosocial SIP	Salvation	Salvage	145	1 years	adjusted for probability of amputation	Multivariate Regression; Regression coefficient, P-value	-3.2, 0.4347	Not Significant
Ellington, J. K., 2013	Low Quality	Severe open ankle and hindfoot injuries	Overall Sickness Impact Profile (SIP)	Salvation	Salvage w/ free flap/arthrodesis	145	1 years	adjusted for probability of amputation	Multivariate Regression; Regression coefficient, P-value	7.6, 0.0037	Salvage with free flap/arthrodesis is associated with

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
											higher overall SIP scores at 1 year
Ellington, J. K., 2013	Low Quality	Severe open ankle and hindfoot injuries	Overall Sickness Impact Profile (SIP)	Salvation	Salvage w/ free flap/arthrodesis	131	2 years	adjusted for probability of amputation	Multivariate Regression; Regression coefficient, P-value	2.5, 0.0138	Salvage with free flap/arthrodesis is associated with higher overall SIP scores at 2 years
Ellington, J. K., 2013	Low Quality	Severe open ankle and hindfoot injuries	Physical SIP	Salvation	Salvage w/ free flap/arthrodesis	145	1 years	adjusted for probability of amputation	Multivariate Regression; Regression coefficient, P-value	4.2, 0.0854	Not Significant
Ellington, J. K., 2013	Low Quality	Severe open ankle and hindfoot injuries	Physical SIP	Salvation	Salvage w/ free flap/arthrodesis	131	2 years	adjusted for probability of amputation	Multivariate Regression; Regression coefficient, P-value	3.7, 0.1022	Not Significant
Ellington, J. K., 2013	Low Quality	Severe open ankle and hindfoot injuries	Psychosocial SIP	Salvation	Salvage w/ free flap/arthrodesis	145	1 years	adjusted for probability of amputation	Multivariate Regression; Regression coefficient, P-value	11.2 (0.0008)	Salvage with free flap/arthrodesis is associated with higher psychosocial SIP scores at 1 year

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
Ellington, J. K., 2013	Low Quality	Severe open ankle and hindfoot injuries	Psychosocial SIP	Salvation	Salvage w/ free flap/arthrodesis	131	2 years	adjusted for probability of amputation	Multivariate Regression; Regression coefficient, P-value	8.4, 0.0125	Salvage with free flap/arthrodesis is associated with higher psychosocial SIP scores at 2 year
Ellington, J. K., 2013	Low Quality	Severe open ankle and hindfoot injuries	Re-hospitalization	Salvation	Salvage w/ free flap/arthrodesis	131	2 years	adjusted for probability of amputation	Multivariate Regression; Regression coefficient, P-value	0.1, 0.5608	Not Significant
Ellington, J. K., 2013	Low Quality	Severe open ankle and hindfoot injuries	Time to full weight bearing	Salvation	Salvage w/ free flap/arthrodesis	131	2 years	adjusted for probability of amputation	Multivariate Regression; Regression coefficient, P-value	1.7, 0.6599	Not Significant
Ellington, J. K., 2013	Low Quality	Severe open ankle and hindfoot injuries	Visual Pain	Salvation	Salvage w/ free flap/arthrodesis	131	2 years	adjusted for probability of amputation	Multivariate Regression; Regression coefficient, P-value	3.2, 0.5713	Not Significant
Ellington, J. K., 2013	Low Quality	Severe open ankle and hindfoot injuries	Walking speed > 4 ft/s	Salvation	Salvage w/ free flap/arthrodesis	131	2 years	adjusted for probability of amputation	Multivariate regression, CI	0.4 (0.1-1.0)	Not Significant
Ellington, J. K., 2013	Low Quality	Severe open ankle and hindfoot injuries	Back to work	Salvation	Salvage w/ free flap/arthrodesis	131	2 years	adjusted for probability of amputation	Multivariate regression, CI	1.0 (0.4-2.8)	Not Significant

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
Dickens, J.F., 2013	Low Quality	Combat-related open calcaneal fractures	Amputation	Mechanism of Injury	Blast mechanism of injury	89		Unclear	Multivariate Cox proportional-hazards regression; p-value	<0.05	Blast mechanism of injury was predictive of eventual amputation
Dickens, J.F., 2013	Low Quality	Combat-related open calcaneal fractures	Amputation	Volumetric Muscle Loss/Soft Tissue Injury	Location and larger size of the open wound	89		Unclear	Multivariate Cox proportional-hazards regression; p-value	<0.05	Location and larger size of the open wound was predictive of eventual amputation

Section 13. Degloving

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
Jain, A., 2013	Low Quality	pts w/ non-salvageable lower limb injuries	Infection in Residual Limb	Degloving	Multi-planar degloving	40		>1 debridement, amputation>5 days post injury, ischaemic vascular injury/multi-planar degloving, above-knee amputation, tertiary referral, smoker, diabetes	Multivariate Logistic Regression, OR, CI, p-value	0.6 (0.2-2.3)	Not Significant

Section 14. Operative Complications

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
O'Toole, R. V., 2008	High Quality	LEAP data; limb-threatening lower-extremity injures	Patient Satisfaction	Operative Complications	Major complication	463	2 years	age, gender, education, poverty status, race, insurance, personality profile, medical comorbidites, preinjury work status, preinjury job type, mechanism of injury, open fracture type, severity of bone or skin damage, severity of nerve damage, reconstruction or amputation, timing of initial debridement, timing of admission, timing of definite soft tissue coverage, return to work, SIP, walking speed, pain intensity, major complication, less anxiety	Multiple logistic regression, p-value	p<0.1	Not Significant

Section 15. Prosthesis

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
Gailey, R., 2010	Low Quality	Lower limb amputees; mean age of 29.4years old; 57% currently employed	Functional ability (OIF/OEF Service members)	Prosthesis	No. of specialty-type prosthetic devices	169		QoL, no of prosthetic devices ever received, amputation impact rank, limb-loss level, pain in contralateral leg	Multivariate Logistic regression, OR, CI, p-value	5.79 (2.51-13.3), <0.0001	Increasing number of special prosthetic devices is associated with higher odds of functional ability
Almassi, F., 2010	Low Quality	Iraq-Iran war veterans; amputations primarily due to blast injuries	Skin lesion	Prosthesis	Prosthesis use	335		marriage, education, age, prosthesis, ambulation, stump washing frequency, stump shape, stump length, amputation level, excessive perspiration	Multivariate logistic regression, OR, CI, P-value	NS	Not Significant
Masoumi, M., 2014	Mod. Quality	mixture of civilian and military; unilateral hip disarticulation; avg age 19.54	SF-36 PCS	Prosthesis	Prosthetic use	76		Age, education, employment status, marital status, other war-related injuries, history of hospitalization, prosthetic use, side of disarticulation, sports activities	Multivariate Logistic Regression	NS	Not Significant

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
Masoumi, M., 2014	Mod. Quality	mixture of civilian and military; unilateral hip disarticulation; avg age 19.54	SF-36 MCS	Prosthesis	Prosthetic use	76		Age, education, employment status, marital status, other war-related injuries, history of hospitalization, prosthetic use, side of disarticulation, sports activities	Multivariate Logistic Regression	NS	Not Significant
Laferrier, J. Z., 2010	Low Quality	Vietnam service members w/ lower limb loss	Wheelchair use (Vietnam Group)	Prosthesis	Prosthetic device satisfaction and fit	245		age, sex, race, weight gain, pain, mental health, QoL, prosthetic device satisfaction, health status, stroke, PTSD, TBI, phantom limb, # of surgeries, type of prosthetic, multiple-limb loss, bilateral limb-loss, comorbidities, ambulatory, highly active	Multivariate Logistic regression	NS	Not Significant
Laferrier, J. Z., 2010	Low Quality	OIF/OEF service members w/ lower limb loss	Wheelchair use	Prosthesis	Prosthetic device satisfaction and fit	226		bilateral limb loss, multiple limb loss, cumulative trauma disorder, traumatic brain	Multivariate Logistic regression	NS	Not Significant

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
								injury, # of combat injuries, age, sex, race, weight gain, pain, mental health, Quality of life, prosthetic device satisfaction and fit, health status, stroke, PTSD, TBI, pantom limb, # of surgeries, type of prosthetic.			
Laferrier, J. Z., 2010	Low Quality	Vietnam service members w/ lower limb loss	Wheelchair use (Vietnam Group)	Prosthesis	type of prosthetic device used	245		age, sex, race, weight gain, pain, mental health, QoL, prosthetic device satisfaction, health status, stroke, PTSD, TBI, phantom limb, # of surgeries, type of prosthetic, multiple-limb loss, bilateral limb-loss, comorbidities, ambulatory, highly active	Multivariate Logistic regression	NS	Not Significant
Gunawardena, N., 2007	Low Quality	All military unilateral amputees; average age 26.2 years old;	Presence of Psychological Distress - GHQ Scale	Prosthesis	Lesser Extent of Prosthetic Use Outdoors	461		<30 y/o, employed in army, threatened with arms, witnessed war	Multivariate Logistic Regression, OR, CI, P-value	1.63 (1.08-3.96), 0.01	Those with lesser extent of prosthetic use

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
		land mine most frequent case of injury									outdoors have higher odds of psychological distress
Gunawardena, N., 2007	Low Quality	All military unilateral amputees; average age 26.2 years old; land mine most frequent case of injury	Presence of Psychological Distress - BSI Scale	Prosthesis	Lesser Extent of Prosthetic Use Outdoors	461		<30 y/o, employed in army, threatened with arms, witnessed war	Multivariate Logistic Regression, OR, CI, P-value	2.33 (1.53-6.08), 0.05	Those with lesser extent of prosthetic use outdoors have higher odds of psychological distress
Gailey, R., 2010	Low Quality	Lower limb amputees; mean age of 29.4years old; 57% currently emplyed	Functional ability (OIF/OEF Service members)	Prosthesis	No of Prosthetic devices ever received	169		QoL, no of specialty-type prosthetic devices used, amputation impact rank, limb-loss level, pain in contralateral leg	Multivariate Logistic regression, OR, CI, p-value	1.13 (1.01-1.27), 0.03	Increasing number of prosthetic devices is associated with higher odds of functional ability
Gailey, R., 2010	Low Quality	Lower limb amputees; mean age of 60.8 years old; 80% currently emplyed	Functional Ability (Vietnam service members)	Prosthesis	No. of Prosthetic Devices used	178		QoL, amputation impact rank, limb-loss level, no. of surgeries post limb loss	Multivariate Logistic regression, OR, CI, p-value	2.30 (1.28-4.14), 0.006	No. of prosthetic devices used results in increased odds of higher functional ability

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
Laferrier, J. Z., 2010	Low Quality	OIF/OEF service members w/ lower limb loss	Wheelchair use	Prosthesis	type of prosthetic device used	226		bilateral limb loss, multiple limb loss, cumulative trauma disorder, traumatic brain injury, # of combat injuries, age, sex, race, weight gain, pain, mental health, Quality of life, prosthetic device satisfaction and fit, health status, stroke, PTSD, TBI, pantom limb, # of surgeries, type of prosthetic.	Multivariate Logistic regression	NS	Not Significant

Section 16. Segmental Bone Loss

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
Burns, T. C., 2012	Low Quality	Type III open tibial fractures	Need for reoperation	Segmental Bone Loss	Presence of segmental bone loss	192		mechanism of injury, G/A grade, OTA classification, segmental bone loss, initial bacterial contamination, surveillance cultures, surveillance organism	Multivariate Logistic Regression; P-value	0.54	Not Significant
Burns, T. C., 2012	Low Quality	Type III open tibial fractures	Time to Union	Segmental Bone Loss	Presence of segmental bone loss	192		mechanism of injury, G/A grade, OTA classification, segmental bone loss, initial bacterial contamination, surveillance cultures, surveillance organism	Multivariate Logistic Regression; P-value	0.34	Not Significant

Section 17. Volumetric Muscle Loss

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follo w-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
MacKenzie , E. J., 2005	Mod. Quality	LEAP Study patients; Unilateral injuries only.	Physical SIP Sub-score of >=5 points	Volumetric Muscle Loss	Soft-tissue injury	397	84 mon.	Treatment, age, gender, race, education, poverty status, smoking status, legal involvement, self-efficacy, probability of amputation	Multivariate Logistic Regression; OR, P-value	3.1, <0.05	Soft-tissue injury is associated with increased odds of high SIP score at 84 mon..
MacKenzie , E. J., 2005	Mod. Quality	LEAP Study patients; Unilateral injuries only.	Physical SIP Sub-score of >=20 points	Volumetric Muscle Loss	Soft-tissue injury	397	84 mon.	Treatment, age, gender, race, education, poverty status, smoking status, legal involvement, self-efficacy, probability of amputation	Multivariate Logistic Regression; OR	1.0	Not Significant
MacKenzie , E. J., 2005	Mod. Quality	LEAP Study patients; Unilateral injuries only.	Psychosocial SIP Sub-score of >=5 points	Volumetric Muscle Loss	Soft-tissue injury	397	84 mon.	Treatment, age, gender, race, education, poverty status, smoking status, legal involvement, self-efficacy, probability of amputation	Multivariate Logistic Regression; OR	1.2	Not Significant
MacKenzie , E. J., 2005	Mod. Quality	LEAP Study patients;	Psychosocial SIP Sub-	Volumetric Muscle Loss	Soft-tissue injury	397	84 mon.	Treatment, age, gender, race, education,	Multivariate Logistic	0.9	Not Significant

Ref. title	Quality	Patient Characteristics	Outcome Title	RF Type	Full RF name	N	Follow-up Time	Confounding Adjustment	Statistic	Result	Author Reported Favored Tx
		Unilateral injuries only.	score of >=20 points					poverty status, smoking status, legal involvement, self-efficacy, probability of amputation	Regression; OR		

Excluded Literature

Authors	Article Title	Year	Expanded Periodical Title	Recommendation(s)	Reason for Exclusion
Naschitz, J. E.; Lenger, R.	Why traumatic leg amputees are at increased risk for cardiovascular diseases	2008	Qjm	Systematic Reviews	Systematic Review
Edwards, D. S.; Phillip, R. D.; Bosanquet, N.; Bull, A. M.; Clasper, J. C.	What Is the Magnitude and Long-term Economic Cost of Care of the British Military Afghanistan Amputee Cohort?	2015	Clin Orthop Relat Res	Patient/Injury factors for LS or Amp	Doesn't address question of interest; sys review
Lazzarini, P. A.; O'Rourke, S. R.; Russell, A. W.; Clark, D.; Kuys, S. S.	What are the key conditions associated with lower limb amputations in a major Australian teaching hospital?	2012	J Foot Ankle Res	Immediate amputation factors; Patient/Injury factors for LS or Amp	Wrong population
Jovanovic, S.; Wertheimer, B.; Zelic, Z.; Getos, Z.	Wartime amputations	1999	Mil Med	Patient/Injury factors for LS or Amp	No usable data
Bumbasirevic, M.; Tomic, S.; Lesic, A.; Milosevic, I.; Atkinson, H. D.	War-related infected tibial nonunion with bone and soft-tissue loss treated with bone transport using the Ilizarov method	2010	Arch Orthop Trauma Surg	Environmental factors for LS or Amp	No controlled comparison; No relevant RFs
Nemec, B.; Santic, V.; Matovinovic, D.; Gulan, G.	War wounds to the foot	2000	Mil Med	Environmental factors for LS or Amp	No controlled comparison; No relevant RFs
Davila, S.; Mikulic, D.	War injuries of the talus	2001	Mil Med	Patient/Injury factors for LS or Amp	No usable data
Radonic, V.; Baric, D.; Giunio, L.; Bill, B.; Kovacevic, H.; Sapunar, D.	War injuries of the femoral artery and vein: a report on 67 cases	1997	Cardiovasc Surg	Immediate amputation factors	case series
Nanobashvili, J.; Kopadze, T.; Tvaladze, M.; Buachidze, T.; Nazvlishvili, G.	War injuries of major extremity arteries	2003	World J Surg	Immediate amputation factors	Mixed population
Hendershot, B. D.; Shojaei, I.; Acasio, J. C.; Dearth, C. L.; Bazrgari, B.	Walking speed differentially alters spinal loads in persons with traumatic lower limb amputation	2018	J Biomech	Environmental factors for LS or Amp	No usable data

Van de Meent, H.; Hopman, M. T.; Frolke, J. P.	Walking ability and quality of life in subjects with transfemoral amputation: a comparison of osseointegration with socket prostheses	2013	Arch Phys Med Rehabil	Environmental factors for LS or Amp	mixed etiology; no controlled comparison
Corona, B. T.; Rivera, J. C.; Owens, J. G.; Wenke, J. C.; Rathbone, C. R.	Volumetric muscle loss leads to permanent disability following extremity trauma	2015	J Rehabil Res Dev	Cost Analysis	
Bruins, R.; Bruins, M.; Geertzen, J. H. B.; Groothoff, J. W.; Schoppen, T.	Vocational reintegration after a lower limb amputation: A qualitative study	2003	Prosthetics and Orthotics International	Environmental factors for LS or Amp	No Controlled Comparison; Mixed Etiology
Jamali, A. R.; Mehboob, G.	Venous trauma	1998	Journal of the College of Physicians and Surgeons Pakistan	Immediate amputation factors	mixed extremity
Hannon, M.; Tadlock, M. D.; Melcer, T.; Walker, J.; Bandle, J.; Nieses, K.; Galarneau, M.	Venous thromboembolism after traumatic amputation: an analysis of 366 combat casualties	2016	American Journal of Surgery	Patient/Injury factors for LS or Amp	Mixed population
Yajima, H.; Tamai, S.; Kobata, Y.; Murata, K.; Fukui, A.; Takakura, Y.; Tomaino, M.	Vascularized composite tissue transfers for open fractures with massive soft-tissue defects in the lower extremities	2002	Microsurgery	Patient/Injury factors for LS or Amp	No controlled comparison
Sfeir, R. E.; Khoury, G. S.; Kenaan, M. K.	Vascular trauma to the lower extremity: the Lebanese war experience	1995	Cardiovasc Surg	Immediate amputation factors	very low quality
Lakhwani, M. N.; Gooi, B. H.; Barras, C. D.	Vascular trauma in Penang and Kuala Lumpur Hospitals	2002	Med J Malaysia	Immediate amputation factors; Patient/Injury factors for LS or Amp	mixed extremity
Macedo, F. I.; Sciarretta, J. D.; Chausse, S.; Sleeman, D.; Pizano, L. R.; Namias, N.	Vascular Reconstruction Is Not Warranted in Most Civilian Traumatic Shank Vascular Injuries	2016	Ann Vasc Surg	Patient/Injury factors for LS or Amp	no controlled comparison; very low quality
Sherif, A. A.	Vascular injuries: experience during the Afghanistan War	1992	Int Surg	Immediate amputation factors	case series

Soares, L. T.; Bastos, C. C.; Junior, A. K.; Pereira, A. J. F.	Vascular injuries in the state of ParÃ¡, Brazil, 2011-2013 and their relation with demographic and clinical variables	2015	Jornal Vascular Brasileiro	Patient/Injury factors for LS or Amp	Mixed population
Kulkarni, M. S.; Aroor, M. N.; Vijayan, S.; Shetty, S.; Tripathy, S. K.; Rao, S. K.	Variables affecting functional outcome in floating knee injuries	2018	Injury	Patient/Injury factors for LS or Amp	No usable data;
Labler, L.; Keel, M.; Trentz, O.	Vacuum-assisted closure (V.A.C.Â®) for temporary coverage of soft-tissue injury in type III open fracture of lower extremities	2004	European Journal of Trauma	Patient/Injury factors for LS or Amp	No controlled comparison
Labler, L.; Trentz, O.	The use of vacuum assisted closure (VAC) in soft tissue injuries after high energy pelvic trauma	2007	Langenbecks Arch Surg	Patient/Injury factors for LS or Amp	Case series
Joseph, T. N.; Myerson, M. S.	Use of talectomy in modern foot and ankle surgery	2004	Foot and Ankle Clinics	Patient/Injury factors for LS or Amp; Environmental factors for LS or Amp	review
Vertrees, A.; Fox, C. J.; Quan, R. W.; Cox, M. W.; Adams, E. D.; Gillespie, D. L.	The use of prosthetic grafts in complex military vascular trauma: a limb salvage strategy for patients with severely limited autologous conduit	2009	J Trauma	Patient/Injury factors for LS or Amp	No RF of interest
Polyzois, V. D.; Galanakos, S. P.; Tsiampa, V. A.; Papakostas, I. D.; Kouris, N. K.; Avram, A. M.; Papalois, A. E.; Ignatiadis, I. A.	The use of Papineau technique for the treatment of diabetic and non-diabetic lower extremity pseudoarthrosis and chronic osteomyelitis	2011	Diabet Foot Ankle		No usable data
Dedmond, B. T.; Kortesis, B.; Punger, K.; Simpson, J.; Argenta, J.; Kulp, B.; Morykwas, M.; Webb, L. X.	The use of negative-pressure wound therapy (NPWT) in the temporary treatment of soft-tissue injuries associated with high-energy open tibial shaft fractures	2007	J Orthop Trauma	Patient/Injury factors for LS or Amp	*wound management*

Rezzadeh, K. S.; Nojan, M.; Buck, A.; Li, A.; Vardanian, A.; Crisera, C.; Festekjian, J.; Jarrahy, R.	The use of negative pressure wound therapy in severe open lower extremity fractures: identifying the association between length of therapy and surgical outcomes	2015	J Surg Res	Patient/Injury factors for LS or Amp	No controlled comparisons
Ulusal, A. E.; Lin, C. H.; Lin, Y. T.; Ulusal, B. G.; Yazar, S.	The use of free flaps in the management of type IIIB open calcaneal fractures	2008	Plast Reconstr Surg	Patient/Injury factors for LS or Amp	Case Series
Zarutsky, E.; Rush, S. M.; Schuberth, J. M.	The use of circular wire external fixation in the treatment of salvage ankle arthrodesis	2005	Journal of Foot and Ankle Surgery	Patient/Injury factors for LS or Amp	mixed etiology; case series
Castillo, R. C.; MacKenzie, E. J.; Webb, L. X.; Bosse, M. J.; Avery, J.	Use and perceived need of physical therapy following severe lower-extremity trauma	2005	Arch Phys Med Rehabil	Environmental factors for LS or Amp	Prospective univariate; very low quality
Miller, M.; Wong, W. K.; Wu, J.; Cavenett, S.; Daniels, L.; Crotty, M.	Upper-Arm Anthropometry: An Alternative Indicator of Nutritional Health to Body Mass Index in Unilateral Lower-Extremity Amputees?	2008	Archives of Physical Medicine and Rehabilitation	Patient/Injury factors for LS or Amp	mixed etiology
Schlickewei, W.; Kuner, E. H.; Mullaji, A. B.; Gotze, B.	Upper and lower limb fractures with concomitant arterial injury	1992	J Bone Joint Surg Br	Immediate amputation factors	mixed extremity
Tomaino, M. M.; Bowen, C. V.	Unsatisfactory outcome after lower limb salvage: decision-making pitfalls	1998	Am J Orthop (Belle Mead NJ)	Immediate amputation factors; Patient/Injury factors for LS or Amp	Case Series
Bennett, P. M.; Sargeant, I. D.; Midwinter, M. J.; Penn-Barwell, J. G.	Unilateral lower limb loss following combat injury: medium-term outcomes in British military amputees	2013	Bone Joint J	Patient/Injury factors for LS or Amp	no RF of interest
Mehta, S. S.; Rees, K.; Cutler, L.; Mangwani, J.	Understanding risks and complications in the management of ankle fractures	2014	Indian J Orthop	Systematic Reviews	Systematic Review
Ritchie, A. J.; Small, J. O.; Hart, N. B.; Mollan, R. A.	Type III tibial fractures in the elderly: results of 23 fractures in 20 patients	1991	Injury	Immediate amputation factors	wrong age range

Siddique, M. K.; Bhatti, A. M.	A two-year experience of treating vascular trauma in the extremities in a military hospital	2013	J Pak Med Assoc	Patient/Injury factors for LS or Amp	Mixed etiology; Mixed population
Leclerc, B.; Boyer, E.; Menu, G.; Leclerc, G.; Sergent, P.; Ducroux, E.; Salomon Du Mont, L.; Garbuio, P.; Rinckenbach, S.; Obert, L.	Two-team management of vascular injuries concomitant with osteo-articular injuries in 36 patients over six years	2018	Orthop Traumatol Surg Res	Immediate amputation factors	mixed extremity
Paudel, B.; Shrestha, B. K.; Banskota, A. K.	Two faces of major lower limb amputations	2005	Kathmandu Univ Med J (KUMJ)	Environmental factors for LS or Amp	No Controlled Comparison; does not address question of interest
Richmond, B. K.; Judhan, R.; Sherrill, W.; Yacoub, M.; AbuRahma, A. F.; Knackstedt, K.; Chumbe, J. T.; Samanta, D.; Thompson, S. N.	Trends and Outcomes in the Operative Management of Traumatic Vascular Injuries: A Comparison of Open versus Endovascular Approaches	2017	Am Surg	Immediate amputation factors	mixed extremity
Armstrong, P. J.; Franklin, D. P.	Treatment of vascular injuries in the multiple-ligament-injured knee	2003	Operative Techniques in Sports Medicine	Patient/Injury factors for LS or Amp	Review
Langworthy, M. J.; Smith, J. M.; Gould, M.	Treatment of the mangled lower extremity after a terrorist blast injury	2004	Clin Orthop Relat Res	Systematic Reviews	review
Rodriguez, C. J.; Tribble, D. R.; Malone, D. L.; Murray, C. K.; Jessie, E. M.; Khan, M.; Fleming, M. E.; Potter, B. K.; Gordon, W. T.; Shackelford, S. A.	Treatment of Suspected Invasive Fungal Infection in War Wounds	2018	Mil Med	Patient/Injury factors for LS or Amp	Review
Karger, C.; Kishi, T.; Schneider, L.; Fitoussi, F.; Masquelet, A. C.	Treatment of posttraumatic bone defects by the induced membrane technique	2012	Orthop Traumatol Surg Res	Patient/Injury factors for LS or Amp	No controlled comparisons ;
Mack, A. W.; Freedman, B. A.; Groth, A. T.; Kirk, K. L.;	Treatment of open proximal femoral fractures sustained in combat	2013	Journal of Bone and Joint Surgery - Series A	Patient/Injury factors for LS or Amp	No controlled comparisons

Keeling, J. J.; Andersen, R. C.					
Covey, D. C.; Peterson, D. A.	Treatment of musculoskeletal blast wounds at a navy field hospital during the Balkans war	1995	Techniques in Orthopaedics	Immediate amputation factors	very low quality
Zhao, L.; Jie, Q.; Ye, M.; Liu, Q.; Huang, Y.	Treatment of limb arterial injuries caused by traffic accidents	2002	Chin J Traumatol	Patient/Injury factors for LS or Amp	No controlled comparisons
Krappinger, D.; Irenberger, A.; Zegg, M.; Huber, B.	Treatment of large posttraumatic tibial bone defects using the Ilizarov method: a subjective outcome assessment	2013	Arch Orthop Trauma Surg	Patient/Injury factors for LS or Amp	no RF of interest
Kumar, P.; Singh, G. K.; Bajracharya, S.	Treatment of grade IIIB opens tibial fracture by Ilizarov hybrid external fixator	2007	Kathmandu Univ Med J (KUMJ)	Patient/Injury factors for LS or Amp	no RF of interest
Turen, C. H.; DiStasio, A. J.	Treatment of grade IIIB and grade IIIC open tibial fractures	1994	Orthop Clin North Am	Immediate amputation factors; Patient/Injury factors for LS or Amp	review
Starr, A. J.; Hunt, J. L.; Reinert, C. M.	Treatment of femur fracture with associated vascular injury	1996	J Trauma	Patient/Injury factors for LS or Amp	No controlled comparisons
Parekh, A. A.; Smith, W. R.; Silva, S.; Agudelo, J. F.; Williams, A. E.; Hak, D.; Morgan, S. J.	Treatment of distal femur and proximal tibia fractures with external fixation followed by planned conversion to internal fixation	2008	J Trauma	Patient/Injury factors for LS or Amp	Mixed etiology
Delimar, D.; Klobucar, H.; Jelic, M.; Cicak, N.; Korzinek, K.	Treatment of defect pseudoarthroses with bone segment transport	2001	Acta Chir Orthop Traumatol Cech	Environmental factors for LS or Amp	No Controlled Comparison
Junnila, J.; Repo, J. P.; Mustonen, A.; Tukiainen, E. J.	Treatment of compound tibial fracture with free osteomuscular latissimus dorsi scapula flap	2015	J Reconstr Microsurg	Patient/Injury factors for LS or Amp	Mixed etiology

Repo, J. P.; Barner-Rasmussen, I.; Roine, R. P.; Sintonen, H.; Tukiainen, E. J.	Treatment of compound tibia fracture with microvascular latissimus dorsi flap and the Ilizarov technique: A cross-sectional study of long-term outcomes	2016	J Plast Reconstr Aesthet Surg	Patient/Injury factors for LS or Amp	mixed etiology; no RF of interest
Liu, L.; Tang, X.; Pei, F. X.; Tu, C. Q.; Song, Y. M.; Huang, F. G.; Yang, T. F.; Wang, G. L.; Fang, Y.; Zhang, H.; Zhong, G.	Treatment for 332 cases of lower leg fracture in "5.12" Wenchuan earthquake	2010	Chin J Traumatol	Patient/Injury factors for LS or Amp	case series
Gavrankapetanovic, F.; Gavrankapetanovic, I.; Biscevic, M.	Treatment evaluation of hindfoot injuries caused by pressure activated explosive devices in the war and peace time	2001	Acta Med Croatica	Patient/Injury factors for LS or Amp	not best available; very low quality
Verdant, A.; Gaffiero, P.	The traumatized ischemic lower limb: a search for the optimal treatment	1995	Can J Surg		No usable data;
Shapiro, M. J.; Luchtefeld, W. B.; Durham, R. M.; Mazuski, J. E.	Traumatic train injuries	1994	Am J Emerg Med	Immediate amputation factors; Patient/Injury factors for LS or Amp	mixed extremity; No Controlled Comparison
Yasar, T.; Inci, I.; Furtun, K.; Ozgen, G.	Traumatic pseudoaneurysms of peripheral arteries and their surgical management	1993	Vascular Surgery	Patient/Injury factors for LS or Amp	*Mixed population (lower and upper extremities)
Herzog, G. A.; Serrano-Riera, R.; Sagi, H. C.	Traumatic Proximal Tibiofibular Dislocation: A Marker of Severely Traumatized Extremities	2015	J Orthop Trauma	Immediate amputation factors; Patient/Injury factors for LS or Amp	insufficient data;
Kobayashi, L.; Inaba, K.; Barmparas, G.; Criscuoli, M.; Lustenberger, T.; Talving, P.; Lam, L.; Demetriades, D.	Traumatic limb amputations at a level I trauma center	2011	Eur J Trauma Emerg Surg	Patient/Injury factors for LS or Amp	*mixed-upper & lower extremity*
Khoury, G.; Sfeir, R.; Nabbout, G.; Jabbour-Khoury, S.; Fahl, M.	Traumatic arteriovenous fistulae: "the Lebanese war experience"	1994	Eur J Vasc Surg	Patient/Injury factors for LS or Amp	Mixed population

Hull, J. B.	Traumatic amputation by explosive blast: pattern of injury in survivors	1992	Br J Surg	Patient/Injury factors for LS or Amp	Mixed etiology
Wozasek, G. E.; Moser, K. D.; Haller, H.; Capousek, M.	Trauma involving the proximal tibial epiphysis	1991	Archives of Orthopaedic and Trauma Surgery	Patient/Injury factors for LS or Amp	Incorrect pts population
Lo, C. H.; Leung, M.; Baillieu, C.; Chong, E. W.; Cleland, H.	Trauma centre experience: flap reconstruction of traumatic lower limb injuries	2007	ANZ J Surg	Patient/Injury factors for LS or Amp	No controlled comparisons
Dougherty, P. J.	Transtibial amputees from the Vietnam War. Twenty-eight-year follow-up	2001	J Bone Joint Surg Am	Patient/Injury factors for LS or Amp	prospective univariate; very low quality
Ring, D.; Jupiter, J. B.; Toh, S.	Transarticular bony defects after trauma and sepsis: arthrodesis using vascularized fibular transfer	1999	Plast Reconstr Surg	Patient/Injury factors for LS or Amp	*mixed-upper & lower extremity*
Singer, G.; Thordarson, D.	Train-versus-pedestrian injuries. Orthopaedic management	1994	Orthop Rev	Patient/Injury factors for LS or Amp	*mixed-upper & lower extremity*
Moore, T. J.; Wilson, J. R.; Hartman, M.	Train versus pedestrian accidents	1991	South Med J	Patient/Injury factors for LS or Amp	No controlled comparisons
Kauvar, D. S.; Miller, D.; Walters, T. J.	Tourniquet use is not associated with limb loss following military lower extremity arterial trauma	2018	J Trauma Acute Care Surg	Immediate amputation factors	no RF of interest;
King, D. R.; Larentzakis, A.; Ramly, E. P.	Tourniquet use at the Boston Marathon bombing: Lost in translation	2015	J Trauma Acute Care Surg	Immediate amputation factors	prospective univariate; No Controlled Comparison
Lovric, Z.; Lehner, V.; Wertheimer, B.; Kosic-Lovric, L.	Tourniquet occlusion technique for lower extremity artery reconstruction in war wound	1997	J Cardiovasc Surg (Torino)	Immediate amputation factors	case series; no usable data
Pozo, J. L.; Powell, B.; Andrews, B. G.; Hutton, P. A.; Clarke, J.	The timing of amputation for lower limb trauma	1990	J Bone Joint Surg Br	Patient/Injury factors for LS or Amp	No controlled comparisons
Jeng, C. L.; Campbell, J. T.; Tang, E. Y.; Cerrato, R. A.; Myerson, M. S.	Tibiotalocalcaneal arthrodesis with bulk femoral head allograft for salvage of large defects in the ankle	2013	Foot Ankle Int	Patient/Injury factors for LS or Amp	Mixed etiology

Wukich, D. K.; Mallory, B. R.; Suder, N. C.; Rosario, B. L.	Tibiotalocalcaneal Arthrodesis Using Retrograde Intramedullary Nail Fixation: Comparison of Patients With and Without Diabetes Mellitus	2015	Journal of Foot and Ankle Surgery	Patient/Injury factors for LS or Amp	Incorrect population
Scaglione, M.; Celli, F.; Casella, F.; Fabbri, L.	Tibial pilon fractures treated with hybrid external fixator: analysis of 75 cases	2018	Musculoskelet Surg	Patient/Injury factors for LS or Amp	Mixed etiology
Robinson, C. M.; McLauchlan, G.; Christie, J.; McQueen, M. M.; Court-Brown, C. M.	Tibial fractures with bone loss treated by primary reamed intramedullary nailing	1995	J Bone Joint Surg Br	Environmental factors for LS or Amp	<10 subjects per group
Levy, A. S.; Bromberg, J.; Jasper, D.	Tibia fractures produced from the impact of a baseball bat	1994	J Orthop Trauma	Patient/Injury factors for LS or Amp	No controlled comparisons
Albino, F. P.; Seidel, R.; Brown, B. J.; Crone, C. G.; Attinger, C. E.	Through knee amputation: technique modifications and surgical outcomes	2014	Arch Plast Surg	Patient/Injury factors for LS or Amp	Mixed etiology
Littman, A. J.; Bouldin, E. D.; Haselkorn, J. K.	This is your new normal: A qualitative study of barriers and facilitators to physical activity in Veterans with lower extremity loss	2017	Disabil Health J	Environmental factors for LS or Amp	No controlled comparison; No relevant RFs
Krueger, C. A.; Wenke, J. C.; Ficke, J. R.	Ten years at war: comprehensive analysis of amputation trends	2012	J Trauma Acute Care Surg	Patient/Injury factors for LS or Amp	*mixed-upper & lower extremity*
Oliver, J. C.; Bekker, W.; Edu, S.; Nicol, A. J.; Navsaria, P. H.	A ten year review of civilian iliac vessel injuries from a single trauma centre	2012	Eur J Vasc Endovasc Surg	Immediate amputation factors	very low quality
Bobroff, G. D.; Gold, S.; Zinar, D.	Ten year experience with use of Ilizarov bone transport for tibial defects	2003	Bull Hosp Jt Dis	Patient/Injury factors for LS or Amp	no controlled comparisons
Magee, T. R.; Collin, J.; Hands, L. J.; Gray, D. W.; Roake, J.	A ten year audit of surgery for vascular trauma in a British teaching hospital	1996	Eur J Vasc Endovasc Surg	Patient/Injury factors for LS or Amp	case series
Oliver, J. C.; Gill, H.; Nicol, A. J.; Edu, S.; Navsaria, P. H.	Temporary vascular shunting in vascular trauma: a 10-year	2013	S Afr J Surg	Immediate amputation factors	Doesn't address question of interest; mixed extremity

	review from a civilian trauma centre				
Jarvis, H. L.; Bennett, A. N.; Twiste, M.; Phillip, R. D.; Etherington, J.; Baker, R.	Temporal Spatial and Metabolic Measures of Walking in Highly Functional Individuals With Lower Limb Amputations	2017	Arch Phys Med Rehabil	Environmental factors for LS or Amp	no comparison of interest
Yakuboff, K. P.; Stern, P. J.; Neale, H. W.	Technical successes and functional failures after free tissue transfer to the tibia	1990	Microsurgery	Patient/Injury factors for LS or Amp	case series
Hammer, R.; Lidman, D.; Nettelblad, H.; Ostrup, L.	Team approach to tibial fracture. 37 consecutive type III cases reviewed after 2-10 years	1992	Acta Orthop Scand	Environmental factors for LS or Amp	No relevant RFs
Kaufman, K. R.; Wyatt, M. P.; Sessoms, P. H.; Grabiner, M. D.	Task-specific fall prevention training is effective for warfighters with transtibial amputations	2014	Clin Orthop Relat Res	Environmental factors for LS or Amp	no comparison group
Butler, K.; Bowen, C.; Hughes, A. M.; Torah, R.; Ayala, I.; Tudor, J.; Metcalf, C. D.	A systematic review of the key factors affecting tissue viability and rehabilitation outcomes of the residual limb in lower extremity traumatic amputees	2014	J Tissue Viability	Systematic Reviews	Systematic Review
Saddawi-Konefka, D.; Kim, H. M.; Chung, K. C.	A systematic review of outcomes and complications of reconstruction and amputation for type IIIB and IIIC fractures of the tibia	2008	Plast Reconstr Surg	Systematic Reviews	systematic review
Malcolm-Smith, N. A.	Syme and his amputation	2004	Surgeon	Immediate amputation factors; Patient/Injury factors for LS or Amp; Environmental factors for LS or Amp	Mixed etiology
Fufa, D. T.; Lin, C. H.; Lin, Y. T.; Hsu, C. C.; Lin, C. H.	Survival and secondary surgery following lower extremity replantation	2014	J Reconstr Microsurg	Immediate amputation factors	No Controlled Comparison

Ersoy, A.; Yavuz, M.; Usta, M.; Ercan, I.; Aslanhan, I.; Gullulu, M.; Kurt, E.; Emir, G.; Dilek, K.; Yurtkuran, M.	Survival analysis of the factors affecting in mortality in injured patients requiring dialysis due to acute renal failure during the Marmara earthquake: survivors vs non-survivors	2003	Clin Nephrol	Immediate amputation factors	mixed extremity
Wolosker, N.; Guadencio, A.; Kuzniec, S.; Rosoky, R. A.; Kalume, C.; Neves, C. A.; Aun, R.; Langer, B.	Surgical treatment of noniatrogenic trauma of the femoral arteries	1996	Sao Paulo Med J	Patient/Injury factors for LS or Amp	case series
Georgiadis, G. S.; Lazarides, M. K.; Polychronidis, A.; Simopoulos, C.	Surgical treatment of femoral artery infected false aneurysms in drug abusers	2005	ANZ J Surg	Systematic Reviews	*systematic review; references reviewed*
Schon, L. C.; Anderson, C. D.; Easley, M. E.; Lam, P. W.; Trnka, H. J.; Lumsden, D. B.; Levin, G.; Shanker, J.	Surgical treatment of chronic lower extremity neuropathic pain	2001	Clin Orthop Relat Res	Patient/Injury factors for LS or Amp	Mixed etiology
Liu, K.; Tang, T.; Wang, A.; Cui, S.	Surgical revision for stump problems after traumatic above-ankle amputations of the lower extremity	2015	BMC Musculoskelet Disord	Environmental factors for LS or Amp	No controlled comparisons ;
King, J. J., 3rd; Cerynik, D. L.; Blair, J. A.; Harding, S. P.; Tom, J. A.	Surgical outcomes after traumatic open knee dislocation	2009	Knee Surg Sports Traumatol Arthrosc	Patient/Injury factors for LS or Amp	Too few pts
Demirkilic, U.; Kuralay, E.; Yilmaz, A. T.; Ozal, E.; Tatar, H.; Ozturk, O. Y.	Surgical approach to military vascular injuries	1998	Cardiovasc Surg	Patient/Injury factors for LS or Amp	*mixed-upper & lower extremity*
O'Toole, R. V.; Castillo, R. C.; Pollak, A. N.; MacKenzie, E. J.; Bosse, M. J.	Surgeons and their patients disagree regarding cosmetic and overall outcomes after surgery for high-energy lower extremity trauma	2009	J Orthop Trauma	Patient/Injury factors for LS or Amp	No usable data
Nikolic, D. K.; Jovanovic, Z.; Turkovic, G.; Vulovic, R.; Mladenovic, M.	Supracondylar missile fractures of the femur	2002	Injury	Immediate amputation factors	case series

Karpman, R. R.; Del Mar, N. B.	Supracondylar femoral fractures in the frail elderly. Fractures in need of treatment	1995	Clin Orthop Relat Res	Immediate amputation factors	wrong age range
Kim, C. Y.; Kim, Y. H.	Supermicrosurgical reconstruction of large defects on ischemic extremities using supercharging techniques on latissimus dorsi perforator flaps	2012	Plast Reconstr Surg	Patient/Injury factors for LS or Amp	No high-energy trauma
Schandelmaier, P.; Krettek, C.; Rudolf, J.; Kohl, A.; Katz, B. E.; Tscherne, H.	Superior results of tibial rodding versus external fixation in grade 3B fractures	1997	Clin Orthop Relat Res	Patient/Injury factors for LS or Amp	no comparison of interest
Celikoz, B.; Sengezer, M.; Isik, S.; Turegun, M.; Deveci, M.; Duman, H.; Acikel, C.; Nisanci, M.; Ozturk, S.	Subacute reconstruction of lower leg and foot defects due to high velocity-high energy injuries caused by gunshots, missiles, and land mines	2005	Microsurgery	Environmental factors for LS or Amp	No controlled comparison; No relevant RFs
Dutronc, H.; Gobet, A.; Dauchy, F. A.; Klotz, R.; Cazanave, C.; Garcia, G.; Lafarie-Castet, S.; Fabre, T.; Dupon, M.	Stump infections after major lower-limb amputation: a 10-year retrospective study	2013	Med Mal Infect	Patient/Injury factors for LS or Amp	Incorrect population
Sahu, A.; Gupta, R.; Sagar, S.; Kumar, M.; Sagar, R.	A study of psychiatric comorbidity after traumatic limb amputation: A neglected entity	2017	Ind Psychiatry J	Immediate amputation factors; Patient/Injury factors for LS or Amp	mixed extremity
Polyzois, V. D.; Stathopoulos, I. P.; Lampropoulou-Adamidou, K.; Vasiliadis, E. S.; Vlamis, J.; Pneumaticos, S. G.	Strategies for managing bone defects of the lower extremity	2014	Clin Podiatr Med Surg	Patient/Injury factors for LS or Amp	Review
Aftabuddin, M.; Islam, N.; Jafar, M. A.; Haque, I.	The status of lower-limb amputation in Bangladesh: a 6-year review	1997	Surg Today	Immediate amputation factors; Patient/Injury factors for LS or Amp	mixed etiology; insufficient data
Kim, Y. C.; Park, C. I.; Kim, D. Y.; Kim, T. S.; Shin, J. C.	Statistical analysis of amputations and trends in Korea	1996	Prosthet Orthot Int	Immediate amputation factors	Mixed population; wrong age range;

Isakov, E.; Mizrahi, J.; Ring, H.; Susak, Z.; Hakim, N.	Standing sway and weight-bearing distribution in people with below-knee amputations	1992	Arch Phys Med Rehabil	Immediate amputation factors	non-trauma
Kumar, A. R.	Standard wound coverage techniques for extremity war injury	2006	J Am Acad Orthop Surg	Patient/Injury factors for LS or Amp	*mixed-upper & lower extremity*
Zoller, S. D.; Cao, L. A.; Smith, R. A.; Sheppard, W.; Lord, E. L.; Hamad, C. D.; Ghodasra, J. H.; Lee, C.; Jeffcoat, D.	Staged reconstruction of diaphyseal fractures with segmental defects: Surgical and patient-reported outcomes	2017	Injury	Patient/Injury factors for LS or Amp	Too few pts
Sirkin, M.; Sanders, R.; DiPasquale, T.; Herscovici, D., Jr.	A staged protocol for soft tissue management in the treatment of complex pilon fractures	2004	J Orthop Trauma	Patient/Injury factors for LS or Amp	No controlled comparisons
Tejwani, N. C.; Achan, P.	Staged management of high-energy proximal tibia fractures	2004	Bull Hosp Jt Dis	Systematic Reviews	review
Peirano, A. H.; Franz, R. W.	Spirituality and quality of life in limb amputees	2012	Int J Angiol	Immediate amputation factors	mixed extremity; mixed etiology
Kovac, I.; Medved, V.; Ostojic, L.	Spatial, temporal and kinematic characteristics of traumatic transtibial amputees' gait	2010	Coll Antropol		no comparison of interest
Choudry, U.; Moran, S.; Karacor, Z.	Soft-tissue coverage and outcome of gustilo grade IIIB midshaft tibia fractures: a 15-year experience	2008	Plast Reconstr Surg	Patient/Injury factors for LS or Amp	no controlled comparison
Leland, H. A.; Rounds, A. D.; Burtt, K. E.; Gould, D. J.; Marecek, G. S.; Alluri, R. K.; Patel, K. M.; Carey, J. N.	Soft tissue reconstruction and salvage of infected fixation hardware in lower extremity trauma	2018	Microsurgery	Patient/Injury factors for LS or Amp	No controlled comparisons
Kamath, J. B.; Shetty, M. S.; Joshua, T. V.; Kumar, A.; Harshvardhan,; Naik, D. M.	Soft tissue coverage in open fractures of tibia	2012	Indian J Orthop	Environmental factors for LS or Amp	No controlled comparison; No relevant RFs

De Boer, A. S.; Van Lieshout, E. M. M.; Van 't Land, F.; Misselyn, D.; Schepers, T.; Den Hartog, D.; Verhofstad, M. H. J.	Soft tissue complications and timing of surgery in patients with a tongue-type displaced intra-articular calcaneal fracture: An international retrospective cohort study	2018	Injury	Immediate amputation factors	No RF of interest
Messinger, S.; Bozorghadad, S.; Pasquina, P.	Social relationships in rehabilitation and their impact on positive outcomes among amputees with lower limb loss at Walter Reed National Military Medical Center	2018	J Rehabil Med	Environmental factors for LS or Amp	No Controlled Comparison
Court-Brown, C. M.; Brydone, A.	Social deprivation and adult tibial diaphyseal fractures	2007	Injury	Patient/Injury factors for LS or Amp	unclear etiology;
Greenhagen, R. M.; Johnson, A. R.; Bevilacqua, N. J.	Smoking cessation: the role of the foot and ankle surgeon	2010	Foot Ankle Spec		review
Ring, J.; Shoaib, A.; Shariff, R.	Smoking cessation advice in limb reconstruction: An opportunity not to be missed	2017	Injury	Patient/Injury factors for LS or Amp	Mixed etiology
Polfer, E. M.; Tintle, S. M.; Forsberg, J. A.; Potter, B. K.	Skin Grafts for Residual Limb Coverage and Preservation of Amputation Length	2015	Plast Reconstr Surg	Patient/Injury factors for LS or Amp	*mixed-upper & lower extremity*
Almassi, F.; Mousavi, B.; Masumi, M.; Souroush, M. R.; Honari, G.	Skin disorders associated with bilateral lower extremity amputation	2009	Pak J Biol Sci		no comparison of interest
Lin, C. H.; Mardini, S.; Lin, Y. T.; Yeh, J. T.; Wei, F. C.; Chen, H. C.	Sixty-five clinical cases of free tissue transfer using long arteriovenous fistulas or vein grafts	2004	J Trauma	Patient/Injury factors for LS or Amp	Mixed etiology and population
Mathews, J. A.; Ward, J.; Chapman, T. W.; Khan, U. M.; Kelly, M. B.	Single-stage orthoplastic reconstruction of Gustilo-Anderson Grade III open tibial fractures greatly reduces infection rates	2015	Injury	Environmental factors for LS or Amp	No controlled comparison; No relevant RFs

Balakrishnan, T. M.; Sridhar, S.; Jaganmohan, J.; Rajan, H. K. G.; Vaidyanathan, S.	Single stage reconstruction of post traumatic and post excisional composite perigenual defects using chimeric pedicled propelled osteomyocutaneous fibula flap	2018	Injury	Patient/Injury factors for LS or Amp	case series
Nambi, G. I.; Salunke, A. A.; Thirumalaisamy, S. G.; Babu, V. L.; Baskaran, K.; Janarthanan, T.; Boopathi, K.; Chen, Y. S.	Single stage management of Gustilo type III A/B tibia fractures: Fixed with nail & covered with fasciocutaneous flap	2017	Chin J Traumatol	Patient/Injury factors for LS or Amp	case series
Robert Rozbruch, S.; Weitzman, A. M.; Tracey Watson, J.; Freudigman, P.; Katz, H. V.; Ilizarov, S.	Simultaneous treatment of tibial bone and soft-tissue defects with the Ilizarov method	2006	J Orthop Trauma	Patient/Injury factors for LS or Amp	no controlled comparisons
Wu, C. C.; Shih, C. H.	Simultaneous bilateral femoral shaft fractures	1992	J Trauma	Patient/Injury factors for LS or Amp	No controlled comparison
Tomaszewski, P. K.; Verdonschot, N.; Bulstra, S. K.; Rietman, J. S.; Verkerke, G. J.	Simulated bone remodeling around two types of osseointegrated implants for direct fixation of upper-leg prostheses	2012	J Mech Behav Biomed Mater	Environmental factors for LS or Amp	No Controlled Comparison; Population n<10
Delhey, P.; Huber, S.; Hanschen, M.; HÃ¤berle, S.; Trentzsch, H.; Deiler, S.; Van Griensven, M.; Biberthaler, P.; Lefering, R.; Huber-Wagner, S.	SIGNIFICANCE of TRAUMATIC MACROAMPUTATION in SEVERELY INJURED PATIENTS: AN ANALYSIS of the TRAUMAREGISTER DGUA	2015	Shock	Patient/Injury factors for LS or Amp	*mixed-upper & lower extremity*
Porter, J. M.; Ivatury, R. R.	Should trauma surgeons render definitive vascular repair in peripheral vascular injuries?	2001	Am Surg	Patient/Injury factors for LS or Amp	*Mixed population (lower and upper extremities)
Ademoglu, Y.; Ada, S.; Kaplan, I.	Should the amputations of the great toe be replanted?	2000	Foot Ankle Int	Patient/Injury factors for LS or Amp	<10 pts
Stewart, M. P.; Kinninmonth, A.	Shotgun wounds of the limbs	1993	Injury	Patient/Injury factors for LS or Amp	*mixed-upper & lower extremity*

Keeling, J. J.; Gwinn, D. E.; Tintle, S. M.; Andersen, R. C.; McGuigan, F. X.	Short-term outcomes of severe open wartime tibial fractures treated with ring external fixation	2008	J Bone Joint Surg Am	Environmental factors for LS or Amp	No controlled comparison; No relevant RFs
Rau, B.; Bonvin, F.; de Bie, R.	Short-term effect of physiotherapy rehabilitation on functional performance of lower limb amputees	2007	Prosthet Orthot Int	Environmental factors for LS or Amp	Mixed Etiology
Toepfer, A.; Harrasser, N.; Petzschner, I.; Pohlig, F.; Lenze, U.; Gerdesmeyer, L.; Pforringer, D.; Toepfer, M.; Beirer, M.; Cronlein, M.; von Eisenhart-Rothe, R.; Muhlhofer, H.	Short- to long-term follow-up of total femoral replacement in non-oncologic patients	2016	BMC Musculoskelet Disord	Patient/Injury factors for LS or Amp	Incorrect pts population
Stuebing, E.; Lieberman, H.; Vu, T.; Mazzini, F. N.; De Gregorio, L.; Gigena, A.; Iglesias, E.; Gonzalo, R.; Perez-Alonso, A. J.; Asensio, J. A.	Shank vessel injuries: the forgotten vascular injuries	2012	Eur J Trauma Emerg Surg	Patient/Injury factors for LS or Amp	Review
Rowe, V. L.; Salim, A.; Lipham, J.; Asensio, J. A.	Shank vessel injuries	2002	Surg Clin North Am	Systematic Reviews	review
McNamara, M. G.; Heckman, J. D.; Corley, F. G.	Severe open fractures of the lower extremity: a retrospective evaluation of the Mangled Extremity Severity Score (MESS)	1994	J Orthop Trauma	Immediate amputation factors	Amputation/Salvage as outcome
Kurtoglu, M.; Yanar, H.; Taviloglu, K.; Sivrikoz, E.; Plevin, R.; Aksoy, M.	Serious lower extremity venous injury management with ligation: prospective overview of 63 patients	2007	Am Surg	Environmental factors for LS or Amp	No relevant RFs
Giannoudis, P. V.; Hinsche, A. F.; Cohen, A.; Macdonald, D. A.; Matthews, S. J.; Smith, R. M.	Segmental tibial fractures: an assessment of procedures in 27 cases	2003	Injury	Immediate amputation factors	No controlled comparison

Woll, T. S.; Duwelius, P. J.	The segmental tibial fracture	1992	Clin Orthop Relat Res	Patient/Injury factors for LS or Amp	Mixed etiology
	Section 2: Limb Salvage and Amputation After Major Lower Limb Trauma	2017	J Orthop Trauma	Immediate amputation factors	review
Dupaix, J. P.; Wilding, C. S. R.; Tubb, C. C. C.; Oh, C. J. S.; Ryan, L. P. M.	Second Place: Dismounted complex blast injuries: Patterns of remaining limb injuries in patients with single-limb lower extremity amputations	2018	Current Orthopaedic Practice	Immediate amputation factors; Patient/Injury factors for LS or Amp	very low quality
Rajasekaran, S.; Naresh Babu, J.; Dheenadhayalan, J.; Shetty, A. P.; Sundararajan, S. R.; Kumar, M.; Rajasabapathy, S.	A score for predicting salvage and outcome in Gustilo type-IIIA and type-IIIB open tibial fractures	2006	J Bone Joint Surg Br	Immediate amputation factors	Amp/Sal as outcome
Hallaj Karladani, A.; Granhed, H.; Fogdestam, I.; Styf, J.	Salvaged limbs after tibial shaft fractures with extensive soft-tissue injury: A biopsychosocial function analysis	2001	Journal of Trauma - Injury, Infection and Critical Care	Patient/Injury factors for LS or Amp	No controlled comparisons
Kumar, M. K.; Badole, C.; Patond, K.	Salvage versus amputation: Utility of mangled extremity severity score in severely injured lower limbs	2007	Indian J Orthop	Immediate amputation factors	Amp/Sal as outcome
Rohde, C.; Ascherman, J. A.	Salvage Reconstruction of Lower Extremity Defects with Muscle Flaps: Versatility, Techniques, and Limitations	2009	Techniques in Orthopaedics		Review; No usable data
Kind, G. M.; Dickinson, J. A.; Buncke, G. M.; Buntic, R. F.; Chin, B.; Buncke, H. J., Jr.	Salvage of the severely traumatized lower extremity	1997	Surg Technol Int	Immediate amputation factors	case series; wrong age range
Sanders, R.; Pappas, J.; Mast, J.; Helfet, D.	The salvage of open grade IIIB ankle and talus fractures	1992	J Orthop Trauma	Immediate amputation factors	not enough subjects per group (n=11)
Dagum, A. B.; Best, A. K.; Schemitsch, E. H.;	Salvage after severe lower-extremity trauma: are the outcomes worth the means?	1999	Plast Reconstr Surg	Patient/Injury factors for LS or Amp	prospective univariate; very low quality

Mahoney, J. L.; Mahomed, M. N.; Blight, K. R.					
Humphrey, P. W.; Nichols, W. K.; Silver, D.	Rural vascular trauma: a twenty-year review	1994	Ann Vasc Surg	Patient/Injury factors for LS or Amp	*mixed-upper & lower extremity*
Sayed, L.; Kelemen, N.; Williams, S.; Offer, G. J.	The Role of the Very Long Posterior Tibial Artery Flap following Severe Lower Limb Trauma: Case Series and Literature Review	2013	Plast Reconstr Surg Glob Open	Systematic Reviews	systematic review
Giannoudis, P. V.; Papakostidis, C.; Kouvidis, G.; Kanakaris, N. K.	The role of plating in the operative treatment of severe open tibial fractures: a systematic review	2009	Int Orthop	Systematic Reviews	Systematic Review
Kasabian, A. K.; Colen, S. R.; Shaw, W. W.; Pachter, H. L.	The role of microvascular free flaps in salvaging below-knee amputation stumps: a review of 22 cases	1991	J Trauma	Immediate amputation factors	case series
Attinger, C. E.; Ducic, I.; Cooper, P.; Zelen, C. M.	The role of intrinsic muscle flaps of the foot for bone coverage in foot and ankle defects in diabetic and nondiabetic patients	2002	Plast Reconstr Surg		mixed etiology;
Moda, S. K.; Kalra, G. S.; Gupta, R. S.; Maggu, N. K.; Gupta, R. K.; Kalra, M. K.	The role of early flap coverage in the management of open fractures of both bones of the leg	1994	Injury	Patient/Injury factors for LS or Amp	Mixed etiology
Kendall, R. W.; Taylor, D. C.; Salvian, A. J.; O'Brien, P. J.	The role of arteriography in assessing vascular injuries associated with dislocations of the knee	1993	J Trauma	Patient/Injury factors for LS or Amp	No controlled comparison
Hohmann, E.; Birkholtz, F.; Glatt, V.; Tetsworth, K.	The "Road to Union" protocol for the reconstruction of isolated complex high-energy tibial trauma	2017	Injury	Patient/Injury factors for LS or Amp; Environmental factors for LS or Amp	No usable data

Harwood, P. J.; Giannoudis, P. V.; Probst, C.; Krettek, C.; Pape, H. C.	The risk of local infective complications after damage control procedures for femoral shaft fracture	2006	J Orthop Trauma	Environmental factors for LS or Amp	prospective univariate; very low quality; no RF of interest
Henry, P.; Wasserstein, D.; Paterson, M.; Kreder, H.; Jenkinson, R.	Risk factors for reoperation and mortality after the operative treatment of tibial plateau fractures in Ontario, 1996-2009	2015	J Orthop Trauma	Patient/Injury factors for LS or Amp	unclear etiology;
Helgeson, M. D.; Potter, B. K.; Burns, T. C.; Hayda, R. A.; Gajewski, D. A.	Risk factors for and results of late or delayed amputation following combat-related extremity injuries	2010	Orthopedics	Patient/Injury factors for LS or Amp	mixed extremity
Al Wahbi, A.; Aldakhil, S.; Al Turki, S.; El Kayali, A.; Al Kohlani, H.; Al Showmer, A.	Risk factors for amputation in extremity vascular injuries in Saudi Arabia	2016	Vasc Health Risk Manag	Immediate amputation factors	mixed extremity; very low quality
Rodriguez, C. J.; Weintrob, A. C.; Shah, J.; Malone, D.; Dunne, J. R.; Weisbrod, A. B.; Lloyd, B. A.; Warkentien, T. E.; Murray, C. K.; Wilkins, K.; Shaikh, F.; Carson, M. L.; Aggarwal, D.; Tribble, D. R.	Risk factors associated with invasive fungal infections in combat trauma	2014	Surg Infect (Larchmt)	Patient/Injury factors for LS or Amp	mixed extremity
Ramdass, M. J.; Muddeen, A.; Harnarayan, P.; Spence, R.; Milne, D.	Risk factors associated with amputation in civilian popliteal artery trauma	2018	Injury	Immediate amputation factors	very low quality
Bates, B. E.; Xie, D.; Kurichi, J. E.; Cowper Ripley, D.; Kwong, P. L.; Stineman, M. G.	Revisiting risks associated with mortality following initial transtibial or transfemoral amputation	2012	J Rehabil Res Dev	Immediate amputation factors	wrong age range; mixed etiology;
Giannoudis, P. V.; Papakostidis, C.; Roberts, C.	A review of the management of open fractures of the tibia and femur	2006	J Bone Joint Surg Br	Systematic Reviews	Systematic review;

Robbins, C. B.; Vreeman, D. J.; Sothmann, M. S.; Wilson, S. L.; Oldridge, N. B.	A review of the long-term health outcomes associated with war-related amputation	2009	Mil Med	Systematic Reviews	*systematic review; references reviewed*
Siev-Ner, I.; Heim, M.; Warshavski, M.; Daich, A.; Tamir, E.; Dudkiewicz, I.	A review of the aetiological factors and results of trans-ankle (Syme) disarticulations	2006	Disability and Rehabilitation	Immediate amputation factors; Patient/Injury factors for LS or Amp	Wrong population
Olesen, U. K.; Juul, R.; Bonde, C. T.; Moser, C.; McNally, M.; Jensen, L. T.; Elberg, J. J.; Eckardt, H.	A review of forty five open tibial fractures covered with free flaps. Analysis of complications, microbiology and prognostic factors	2015	Int Orthop	Patient/Injury factors for LS or Amp	Mixed etiology; no controlled comparison
Orr, J.; Kirk, K. L.; Antunez, V.; Ficke, J.	Reverse sural artery flap for reconstruction of blast injuries of the foot and ankle	2010	Foot Ankle Int	Immediate amputation factors	10 subjects;
Moini, M.; Takyar, M. A.; Rasouli, M. R.	Revascularisation later than 24h after popliteal artery trauma: is it worthwhile?	2007	Injury	Patient/Injury factors for LS or Amp	Too few pts
Burger, H.; Marincek, C.	Return to work after lower limb amputation	2007	Disabil Rehabil	Systematic Reviews	*systematic review; references reviewed*
Owens, J. G.; Blair, J. A.; Patzkowski, J. C.; Blanck, R. V.; Hsu, J. R.	Return to running and sports participation after limb salvage	2011	J Trauma		No Controlled Comparison
Barrow, A. E.; Sheean, A. J.; Burns, T. C.	Return to duty following combat-related multi-ligamentous knee injury	2017	Injury	Patient/Injury factors for LS or Amp	mixed etiology
Sheean, A. J.; Krueger, C. A.; Hsu, J. R.	Return to duty and disability after combat-related hindfoot injury	2014	J Orthop Trauma	Patient/Injury factors for LS or Amp	no controlled comparison
Cross, J. D.; Stinner, D. J.; Burns, T. C.; Wenke, J. C.; Hsu, J. R.	Return to duty after type III open tibia fracture	2012	J Orthop Trauma	Patient/Injury factors for LS or Amp	retrospective, univariate - very low quality
Salamon, T.; Lerner, A.; Rothem, D.; Altshuler, A.; Karmeli, R.; Solomonov, E.; Biswas, S.	Retrospective analysis of case series of patients with vascular war injury treated in a district hospital	2016	Injury	Immediate amputation factors; Patient/Injury factors for LS or Amp	10 subjects;

Patterson, B. M.; Routt, M. L., Jr.; Benirschke, S. K.; Hansen, S. T., Jr.	Retrograde nailing of femoral shaft fractures	1995	J Trauma	Patient/Injury factors for LS or Amp	No comparisons
Zamir, G.; Berlatzky, Y.; Rivkind, A.; Anner, H.; Wolf, Y. G.	Results of reconstruction in major pelvic and extremity venous injuries	1998	J Vasc Surg	Immediate amputation factors; Patient/Injury factors for LS or Amp	Mixed etiology;
Smith, E.; Ryall, N.	Residual limb osteomyelitis: a case series from a national prosthetic centre	2009	Disabil Rehabil	Immediate amputation factors; Patient/Injury factors for LS or Amp	Wrong population
Guo, Q. F.; Xu, Z. H.	Rescue and treatment of severely injured lower extremities	2005	Chin J Traumatol	Immediate amputation factors; Patient/Injury factors for LS or Amp	Case series; No controlled comparison
Percival, T. J.; Rasmussen, T. E.	Reperfusion strategies in the management of extremity vascular injury with ischaemia	2012	Br J Surg	Systematic Reviews	review
Tintle, S. M.; Shawen, S. B.; Forsberg, J. A.; Gajewski, D. A.; Keeling, J. J.; Andersen, R. C.; Potter, B. K.	Reoperation after combat-related major lower extremity amputations	2014	J Orthop Trauma	Patient/Injury factors for LS or Amp	No RF of interest;
Ege, T.; Unlu, A.; Tas, H.; Bek, D.; Turkan, S.; Cetinkaya, A.	Reliability of the mangled extremity severity score in combat-related upper and lower extremity injuries	2015	Indian J Orthop	Patient/Injury factors for LS or Amp	*mixed-upper & lower extremity*
Sears, E. D.; Davis, M. M.; Chung, K. C.	Relationship between timing of emergency procedures and limb amputation in patients with open tibia fracture in the United States, 2003 to 2009	2012	Plast Reconstr Surg	Patient/Injury factors for LS or Amp; Environmental factors for LS or Amp	Amputation/Salvage as Outcome
Wezenberg, D.; van der Woude, L. H.; Faber, W. X.; de Haan, A.; Houdijk, H.	Relation between aerobic capacity and walking ability in older adults with a lower-limb amputation	2013	Arch Phys Med Rehabil	Immediate amputation factors	mixed etiology
Doi, K.; Sakai, K.; Ihara, K.; Abe, Y.; Kawai, S.; Kurafuji, Y.	Reinnervated free muscle transplantation for extremity reconstruction	1993	Plast Reconstr Surg		mixed trauma/mixed etiology

Hoyt, B. W.; Pavey, G. J.; Pasquina, P. F.; Potter, B. K.	Rehabilitation of Lower Extremity Trauma: a Review of Principles and Military Perspective on Future Directions	2015	Current Trauma Reports	Environmental factors for LS or Amp	No Controlled Comparison; No usable data
Arangio, G. A.; Lehr, S.; Reed, J. F., 3rd	Reemployment of patients with surgical salvage of open, high-energy tibial fractures: an outcome study	1997	J Trauma	Patient/Injury factors for LS or Amp	No RF of interest
Gross, D. P.; Battie, M. C.	Recovery expectations predict recovery in workers with back pain but not other musculoskeletal conditions	2010	J Spinal Disord Tech	Environmental factors for LS or Amp	mixed extremity; mixed etiology
Tomaino, M.; Bowen, V.	Reconstructive surgery for lower limb salvage	1995	Can J Surg	Immediate amputation factors; Patient/Injury factors for LS or Amp	review
Kombate, N. K.; Walla, A.; Ayouba, G.; Bakriga, B. M.; Dellanh, Y. Y.; Abalo, A. G.; Dossim, A. M.	Reconstruction of traumatic bone loss using the induced membrane technique: preliminary results about 11 cases	2017	J Orthop	Patient/Injury factors for LS or Amp	Mixed population; case series;
Lovric, Z.; Wertheimer, B.; Candrlic, K.; Lehner, V.; Rubin, O.	Reconstruction of the popliteal artery after war injury	1994	Unfallchirurg	Patient/Injury factors for LS or Amp	Case series; no controlled comparison
Kucan, J. O.; Bash, D.	Reconstruction of the burned foot	1992	Clinics in Plastic Surgery	Immediate amputation factors; Patient/Injury factors for LS or Amp	review
Goldberg, D. P.; Kucan, J. O.; Bash, D.	Reconstruction of the burned foot	2000	Clin Plast Surg	Patient/Injury factors for LS or Amp	Review
Fakri, R. M.; Al Ani, A. M.; Rose, A. M.; Alras, M. S.; Daumas, L.; Baron, E.; Khaddaj, S.; Herard, P.	Reconstruction of nonunion tibial fractures in war-wounded Iraqi civilians, 2006-2008: better late than never	2012	J Orthop Trauma	Patient/Injury factors for LS or Amp	Retrospective Univariate; very low quality
Lovric, Z.; Lehner, V.; Kosic-Lovric, L.; Wertheimer, B.	Reconstruction of major arteries of lower extremities after war injuries. Long-term follow up	1996	J Cardiovasc Surg (Torino)	Patient/Injury factors for LS or Amp	prospective univariate; very low quality

Ulusal, B. G.; Lin, Y. T.; Ulusal, A. E.; Lin, C. H.; Yen, J. T.	Reconstruction of foot defects with free lateral arm fasciocutaneous flaps: analysis of fifty patients	2005	Microsurgery	Patient/Injury factors for LS or Amp	*mixed trauma
Lenoble, E.; Lewertowski, J. M.; Goutallier, D.	Reconstruction of compound tibial and soft tissue loss using a traction histogenesis technique	1995	J Trauma		12 patients
Anderson, C. D.; Stewart, J. D.; Unger, D. V.	Recent advances in lower-extremity amputations	2007	Current Opinion in Orthopaedics	Immediate amputation factors; Patient/Injury factors for LS or Amp	review
Fergason, J.; Keeling, J. J.; Bluman, E. M.	Recent advances in lower extremity amputations and prosthetics for the combat injured patient	2010	Foot Ankle Clin	Systematic Reviews	review
Halim, A. S.; Imran, Y.	Recalcitrant post-traumatic chronic osteomyelitis/infected non-union of the tibia following open grade-ill fractures: treatment with vascularized osteocutaneous fibular graft	2006	Med J Malaysia	Immediate amputation factors; Patient/Injury factors for LS or Amp	8 patients
Keating, J. F.; Blachut, P. A.; O'Brien, P. J.; Meek, R. N.; Broekhuyse, H.	Reamed nailing of open tibial fractures: does the antibiotic bead pouch reduce the deep infection rate?	1996	J Orthop Trauma	Environmental factors for LS or Amp	prospective univariate; no RF of interest;
Keating, J. F.; Blachut, P. A.; O'Brien, P. J.; Court-Brown, C. M.	Reamed nailing of Gustilo grade-IIIB tibial fractures	2000	J Bone Joint Surg Br	Patient/Injury factors for LS or Amp	prospective univariate; very low quality
Keating, J. F.; O'Brien, P. I.; Blachut, P. A.; Meek, R. N.; Broekhuyse, H. M.	Reamed interlocking intramedullary nailing of open fractures of the tibia	1997	Clin Orthop Relat Res	Patient/Injury factors for LS or Amp	too few pts;
Pincus, D.; Veljkovic, A.; Zochowski, T.; Mahomed, N.; Ogilivie-Harris, D.; Wasserstein, D.	Rate of and Risk Factors for Intermediate-Term Reoperation After Ankle Fracture Fixation: A Population-Based Cohort Study	2017	J Orthop Trauma	Patient/Injury factors for LS or Amp	unclear etiology;
Weber, D. J.; Shoham, D. A.; Luke, A.; Reed, R. L., 2nd; Luchette, F. A.	Racial odds for amputation ratio in traumatic lower extremity fractures	2011	J Trauma	Immediate amputation factors; Environmental factors for LS or Amp	Amputation/Salvage as outcome

Kuralay, E.; Demirkilic, U.; Ozal, E.; Oz, B. S.; Cingoz, F.; Gunay, C.; Yildirim, V.; Arslan, M.; Tatar, H.	A quantitative approach to lower extremity vein repair	2002	J Vasc Surg	Patient/Injury factors for LS or Amp	Doesn't address question of interest; Mixed Etiology
Pasquina, P. F.; Tsao, J. W.; Collins, D. M.; Chan, B. L.; Charrow, A.; Karmarkar, A. M.; Cooper, R. A.	Quality of medical care provided to service members with combat-related limb amputations: report of patient satisfaction	2008	J Rehabil Res Dev	Environmental factors for LS or Amp	No Controlled Comparison
Nwachukwu, B. U.; Schairer, W. W.; O'Dea, E.; McCormick, F.; Lane, J. M.	The Quality of Cost-Utility Analyses in Orthopedic Trauma	2015	Orthopedics	Systematic Reviews	References Reviewed
Shauver, M. S.; Aravind, M. S.; Chung, K. C.	A qualitative study of recovery from type III-B and III-C tibial fractures	2011	Ann Plast Surg	Environmental factors for LS or Amp	No Controlled Comparison; No comparison group
Ali, S.; Abu Osman, N. A.; Naqshbandi, M. M.; Eshraghi, A.; Kamyab, M.; Gholizadeh, H.	Qualitative study of prosthetic suspension systems on transtibial amputees' satisfaction and perceived problems with their prosthetic devices	2012	Arch Phys Med Rehabil	Environmental factors for LS or Amp	No Controlled Comparison; no relevant RFs
Quon, D. L.; Dudek, N. L.; Marks, M.; Boutet, M.; Varpio, L.	A qualitative study of factors influencing the decision to have an elective amputation	2011	J Bone Joint Surg Am	Immediate amputation factors	8 patients
Aravind, M.; Shauver, M. J.; Chung, K. C.	A qualitative analysis of the decision-making process for patients with severe lower leg trauma	2010	Plast Reconstr Surg	Patient/Injury factors for LS or Amp	no usable data
Mousavi, B.; Masoumi, M.; Soroush, M.; Shahriar, S.; Firoozabadi, A.	The psychological morbidity in the long term after war related bilateral lower limb amputation	2017	Medical Journal Armed Forces India	Patient/Injury factors for LS or Amp	No controlled comparison
Sahu, A.; Sagar, R.; Sarkar, S.; Sagar, S.	Psychological effects of amputation: A review of studies from India	2016	Ind Psychiatry J	Systematic Reviews	*systematic review; references reviewed*

Stranix, J. T.; Borab, Z. M.; Rifkin, W. J.; Jacoby, A.; Lee, Z. H.; Anzai, L.; Ceradini, D. J.; Thanik, V.; Saadeh, P. B.; Levine, J. P.	Proximal versus Distal Recipient Vessels in Lower Extremity Reconstruction: A Retrospective Series and Systematic Review	2018	Journal of Reconstructive Microsurgery	Systematic Reviews	Doesn't address question of interest;
Ebied, A. M.; Elseedy, A. I.; Gamal, O.	A protocol for staged arthroplasty to salvage infected nonunion of hip fractures	2017	J Orthop Traumatol	Patient/Injury factors for LS or Amp	Unclear trauma; no controlled comparison
Ward, R. S.; Hayes-Lundy, C.; Schnebly, W. A.; Saffle, J. R.	Prosthetic use in patients with burns and associated limb amputations	1990	J Burn Care Rehabil	Patient/Injury factors for LS or Amp	Mixed etiology;
Smith, D. G.; Horn, P.; Malchow, D.; Boone, D. A.; Reiber, G. E.; Hansen, S. T., Jr.	Prosthetic history, prosthetic charges, and functional outcome of the isolated, traumatic below-knee amputee	1995	J Trauma	Environmental factors for LS or Amp	no comparison group
Burger, H.; Marincek, C.; Jaeger, R. J.	Prosthetic device provision to landmine survivors in Bosnia and Herzegovina: outcomes in 3 ethnic groups	2004	Arch Phys Med Rehabil	Environmental factors for LS or Amp	No controlled comparison; No relevant RFs
Raichle, K. A.; Hanley, M. A.; Molton, I.; Kadel, N. J.; Campbell, K.; Phelps, E.; Ehde, D.; Smith, D. G.	Prosthesis use in persons with lower- and upper-limb amputation	2008	J Rehabil Res Dev	Environmental factors for LS or Amp	mixed etiology
Delauche, M. C.; Blackwell, N.; Le Perff, H.; Khallaf, N.; Muller, J.; Callens, S.; Allafort Duverger, T.	A Prospective Study of the Outcome of Patients with Limb Trauma following the Haitian Earthquake in 2010 at One- and Two- Year (The SuTra2 Study)	2013	PLoS Curr	Patient/Injury factors for LS or Amp	Prospective univariate; very low quality
Bosse, M. J.; MacKenzie, E. J.; Kellam, J. F.; Burgess, A. R.; Webb, L. X.; Swiontkowski, M. F.; Sanders, R. W.; Jones, A. L.; McAndrew, M. P.; Patterson, B. M.; McCarthy, M. L.; Cyril, J. K.	A prospective evaluation of the clinical utility of the lower-extremity injury-severity scores	2001	J Bone Joint Surg Am	Immediate amputation factors	SENS/SPEC outcome measure; Amp/Sal as outcome

Rerkasem, K.; Arworn, S.; Thepmalai, K.	Prognostic factors of leg amputation in patients with vascular injury: a systematic review	2006	Int J Low Extrem Wounds	Systematic Reviews	*systematic review; references reviewed*
Maricevic, A.; Erceg, M.; Gekic, K.	Primary wound closure in war amputations of the limbs	1997	Int Orthop	Patient/Injury factors for LS or Amp	Mixed etiology; no controlled comparisons
Nikolic, D.; Jovanovic, Z.; Vulovic, R.; Mladenovic, M.	Primary surgical treatment of war injuries of the foot	2000	Injury	Patient/Injury factors for LS or Amp	No controlled comparison
Nikolic, D.; Jovanovic, Z.; Popovic, Z.; Vulovic, R.; Mladenovic, M.	Primary surgical treatment of war injuries of major joints of the limbs	1999	Injury	Patient/Injury factors for LS or Amp	*mixed-upper & lower extremity*
Schiro, G. R.; Sessa, S.; Piccioli, A.; Maccauro, G.	Primary amputation vs limb salvage in mangled extremity: a systematic review of the current scoring system	2015	BMC Musculoskelet Disord	Systematic Reviews	*systematic review; references reviewed*
Abeyasinghe, N. L.; de Zoysa, P.; Bandara, K. M.; Bartholameuz, N. A.; Bandara, J. M.	The prevalence of symptoms of Post-Traumatic Stress Disorder among soldiers with amputation of a limb or spinal injury: a report from a rehabilitation centre in Sri Lanka	2012	Psychol Health Med	Patient/Injury factors for LS or Amp	mixed population
Struyf, P. A.; van Heugten, C. M.; Hitters, M. W.; Smeets, R. J.	The prevalence of osteoarthritis of the intact hip and knee among traumatic leg amputees	2009	Arch Phys Med Rehabil	Patient/Injury factors for LS or Amp	Prospective univariate; very low quality
Stinner, D. J.; Burns, T. C.; Kirk, K. L.; Scoville, C. R.; Ficke, J. R.; Hsu, J. R.	Prevalence of late amputations during the current conflicts in Afghanistan and Iraq	2010	Mil Med	Immediate amputation factors; Patient/Injury factors for LS or Amp	no RF of interest;
Papakostidis, C.; Kanakaris, N. K.; Pretel, J.; Faour, O.; Morell, D. J.; Giannoudis, P. V.	Prevalence of complications of open tibial shaft fractures stratified as per the Gustilo-Anderson classification	2011	Injury	Systematic Reviews	*systematic review; references reviewed*
Jeffers, R. F.; Tan, H. B.; Nicolopoulos, C.; Kamath, R.; Giannoudis, P. V.	Prevalence and patterns of foot injuries following motorcycle trauma	2004	J Orthop Trauma	Immediate amputation factors	Doesn't address question of interest; case series

Raichle, K. A.; Osborne, T. L.; Jensen, M. P.; Ehde, D. M.; Smith, D. G.; Robinson, L. R.	Preoperative state anxiety, acute postoperative pain, and analgesic use in persons undergoing lower limb amputation	2015	Clin J Pain	Immediate amputation factors	mixed etiology
Wise, E. S.; McMaster, W. G., Jr.; Williamson, K.; Wergin, J. E.; Hocking, K. M.; Brophy, C. M.	Preoperative Predictors of 30-Day Mortality and Prolonged Length of Stay after Above-Knee Amputation	2016	Ann Vasc Surg	Patient/Injury factors for LS or Amp	mixed etiology
Song, W.; Zhou, D.; Dong, J.	Predictors of secondary amputation in patients with grade IIIC lower limb injuries: A retrospective analysis of 35 patients	2017	Medicine (Baltimore)	Immediate amputation factors; Patient/Injury factors for LS or Amp	very low quality
Song, W.; Zhou, D.; Dong, J.	Predictors of secondary amputation in patients with grade IIIC lower limb injuries	2017	Medicine (United States)	Immediate amputation factors	duplicate of AAOS 279;
Yavuz, C.; Demirtas, S.; Caliskan, A.; Ertas, F.; Kaya, H.; Aydin, M.; Benli, E. D.; Celik, Y.; Eren, M. N.	The predictors of poor outcomes in patients with femoral artery injuries	2013	Eur Rev Med Pharmacol Sci	Immediate amputation factors	mixed etiology;
Pape, H. C.; Probst, C.; Lohse, R.; Zelle, B. A.; Panzica, M.; Stalp, M.; Steel, J. L.; Duhme, H. M.; Pfeifer, R.; Krettek, C.; Sittaro, N. A.	Predictors of late clinical outcome following orthopedic injuries after multiple trauma	2010	J Trauma	Patient/Injury factors for LS or Amp	mixed extremity
Fainzilber, G.; Roy-Shapira, A.; Wall, M. J., Jr.; Mattox, K. L.	Predictors of amputation for popliteal artery injuries	1995	Am J Surg	Immediate amputation factors	very low quality
Bolandparvaz, S.; Ghaffari, B.; Mousavi, S. M.; Paydar, S.; Abbasi, H. R.	Predictive Value of Biochemical Markers for Extremity Vascular Trauma Outcome	2013	Bull Emerg Trauma	Patient/Injury factors for LS or Amp	mixed extremity
Karami, M.; Sadat, M. M.; Tavakkoli, H.; Taghavi, M.; Golbakhsh, M. R.	Predictive validity testing of severely injured limb scoring systems	2004	Archives of Iranian Medicine	Patient/Injury factors for LS or Amp	Amp/Sal as outcome

Robertson, P. A.	Prediction of amputation after severe lower limb trauma	1991	J Bone Joint Surg Br	Immediate amputation factors; Patient/Injury factors for LS or Amp	No Controlled Comparison
Sears, J. M.; Blanar, L.; Bowman, S. M.; Adams, D.; Silverstein, B. A.	Predicting work-related disability and medical cost outcomes: estimating injury severity scores from workers' compensation data	2013	J Occup Rehabil	Immediate amputation factors	mixed extremity
Sansam, K.; Neumann, V.; O'Connor, R.; Bhakta, B.	Predicting walking ability following lower limb amputation: a systematic review of the literature	2009	J Rehabil Med	Systematic Reviews	References Reviewed
Brown, K. V.; Ramasamy, A.; McLeod, J.; Stapley, S.; Clasper, J. C.	Predicting the need for early amputation in ballistic mangled extremity injuries	2009	J Trauma	Immediate amputation factors	Amp/Sal as outcome
Madhuchandra, P.; Rafi, M.; Devadoss, S.; Devadoss, A.	Predictability of salvage and outcome of Gustilo and Anderson type-IIIA and type-IIIB open tibial fractures using Ganga Hospital Scoring system	2015	Injury	Immediate amputation factors	Amp/Sal as outcome
Fochtmann, A.; Mittlbock, M.; Binder, H.; Kottstorfer, J.; Hajdu, S.	Potential prognostic factors predicting secondary amputation in third-degree open lower limb fractures	2014	J Trauma Acute Care Surg	Immediate amputation factors	very low quality
Agel, J.; Rockwood, T.; Barber, R.; Marsh, J. L.	Potential predictive ability of the orthopaedic trauma association open fracture classification	2014	J Orthop Trauma	Immediate amputation factors	Amputation/Salvage as outcome
Kienast, B.; Kiene, J.; Gille, J.; Thietje, R.; Gerlach, U.; Schulz, A. P.	Posttraumatic severe infection of the ankle joint - long term results of the treatment with resection arthrodesis in 133 cases	2010	Eur J Med Res	Patient/Injury factors for LS or Amp	Unclear trauma; no comparisons
Davidovic, L.; Lotina, S.; Vojnovic, B.; Kostic, D.; Cinara, I.; Cvetkovic, S.; Saponjski, J.; Neskovic, V.	Post-traumatic AV fistulas and pseudoaneurysms	1997	J Cardiovasc Surg (Torino)	Patient/Injury factors for LS or Amp	Mixed etiology; mixed population;

Koski, A.; Kuokkanen, H.; Tukiainen, E.	Postoperative wound complications after internal fixation of closed calcaneal fractures: a retrospective analysis of 126 consecutive patients with 148 fractures	2005	Scand J Surg	Patient/Injury factors for LS or Amp	Mixed etiology;
Simpson, J. M.; Ebraheim, N. A.; An, H. S.; Jackson, W. T.	Posterolateral bone graft of the tibia	1990	Clin Orthop Relat Res	Patient/Injury factors for LS or Amp	Case series; no controlled comparison
Gallagher, P.; MacLachlan, M.	Positive meaning in amputation and thoughts about the amputated limb	2000	Prosthet Orthot Int	Environmental factors for LS or Amp	Mixed Etiology
Grego, F.; Antonello, M.; Stramana, R.; Deriu, G. P.; Lepidi, S.	Popliteal-to-distal bypass for limb salvage	2004	Ann Vasc Surg	Patient/Injury factors for LS or Amp	Mixed etiology
Fairhurst, P. G.; Wyss, T. R.; Weiss, S.; Becker, D.; Schmidli, J.; Makaloski, V.	Popliteal vessel trauma: Surgical approaches and the vessel-first strategy	2018	Knee	Immediate amputation factors	Wrong population
Peck, J. J.; Eastman, A. B.; Bergan, J. J.; Sedwitz, M. M.; Hoyt, D. B.; McReynolds, D. G.	Popliteal vascular trauma. A community experience	1990	Arch Surg	Immediate amputation factors	not best available
Simmons, J. D.; Gunter, J. W., 3rd; Schmieg, R. E., Jr.; Manley, J. D.; Rushton, F. W., Jr.; Porter, J. M.; Mitchell, M. E.	Popliteal artery injuries in an urban trauma center with a rural catchment area: do delays in definitive treatment affect amputation?	2011	Am Surg	Immediate amputation factors	unclear etiology; no regression
Subasi, M.; Cakir, O.; Kesemenli, C.; Arslan, H.; Necmioglu, S.; Eren, N.	Popliteal artery injuries associated with fractures and dislocations about the knee	2001	Acta Orthop Belg	Patient/Injury factors for LS or Amp	No controlled comparison
Lescalie, F.; Reigner, B.	Popliteal arterial traumas: prognosis factors: multi-center prospective study apropos of 40 cases	1994	J Cardiovasc Surg (Torino)	Patient/Injury factors for LS or Amp	Mixed etiology; no controlled comparison
Bryan, T.; Merritt, P.; Hack, B.	Popliteal arterial injuries associated with fractures or	1991	Orthop Rev	Patient/Injury factors for LS or Amp	Mixed etiology

	dislocations about the knee as a result of blunt trauma				
Pierce, R. O., Jr.; Kernek, C. B.; Ambrose, T. A., 2nd	The plight of the traumatic amputee	1993	Orthopedics	Patient/Injury factors for LS or Amp	No controlled comparisons
Wilken, J. M.; Roy, C. W.; Shaffer, S. W.; Patzkowski, J. C.; Blanck, R. V.; Owens, J. G.; Hsu, J. R.	Physical Performance Limitations After Severe Lower Extremity Trauma in Military Service Members	2018	J Orthop Trauma	Environmental factors for LS or Amp	mixed etiology
Christensen, J.; Ipsen, T.; Doherty, P.; Langberg, H.	Physical and social factors determining quality of life for veterans with lower-limb amputation(s): a systematic review	2016	Disabil Rehabil	Systematic Reviews	References Reviewed
Dillingham, T. R.; Braverman, S. E.; Belandres, P. V.	Persian Gulf War amputees: injuries and rehabilitative needs	1994	Mil Med	Patient/Injury factors for LS or Amp	mixed population
Gwinn, D. E.; Keeling, J.; Froehner, J. W.; McGuigan, F. X.; Andersen, R.	Perioperative differences between bone bridging and non-bone bridging transtibial amputations for wartime lower extremity trauma	2008	Foot Ankle Int	Environmental factors for LS or Amp	No Controlled Comparison
Degiannis, E.; Levy, R. D.; Velmahos, G. C.; Potokar, T.; Saadia, R.	Penetrating injuries of the femoral artery	1995	Br J Surg	Immediate amputation factors; Patient/Injury factors for LS or Amp	No Controlled Comparison
Woodward, E. B.; Clouse, W. D.; Eliason, J. L.; Peck, M. A.; Bowser, A. N.; Cox, M. W.; Jones, W. T.; Rasmussen, T. E.	Penetrating femoropopliteal injury during modern warfare: experience of the Balad Vascular Registry	2008	J Vasc Surg	Immediate amputation factors	No Controlled Comparison
Rayamajhi, S.; Murugan, N.; Nicol, A.; Edu, S.; Klopper, J.; Naidoo, N.; Navsaria, P.	Penetrating femoral artery injuries: an urban trauma centre experience	2018	Eur J Trauma Emerg Surg	Patient/Injury factors for LS or Amp	No controlled comparison

Janjua, S. A.; Sarwar, S. U. R.	Pedicled gastrocnemius muscle flap in the management of complex wounds around the knee joint	2001	Journal of the College of Physicians and Surgeons Pakistan	Patient/Injury factors for LS or Amp	no controlled analysis; case series;
Banskota, B.; Shrestha, S.; Chaudhary, R. K.; Rajbhandari, T.; Rijal, S.; Shrestha, B. K.; Banskota, A. K.	Patterns of Orthopaedic Injuries among Motorbike Accident Admissions Presenting to a Tertiary Care Hospital in Kathmandu	2016	J Nepal Health Res Counc	Immediate amputation factors	Mixed population
Moini, M.; Rasouli, M. R.; Khaji, A.; Farshidfar, F.; Heidari, P.	Patterns of extremity traumas leading to amputation in Iran: results of Iranian National Trauma Project	2009	Chin J Traumatol	Immediate amputation factors; Patient/Injury factors for LS or Amp	*Mixed population and etiology
Fairbanks, G. A.; Murphy, R. X., Jr.; Wasser, T. E.; Morrissey, W. M.	Patterns and implications of lower extremity injuries in a community level I trauma center	2004	Ann Plast Surg	Patient/Injury factors for LS or Amp	Mixed etiology; unclear trauma; no controlled comparison
Gebreslassie, B.; Gebreselassie, K.; Esayas, R.	Patterns and Causes of Amputation in Ayder Referral Hospital, Mekelle, Ethiopia: A Three-Year Experience	2018	Ethiop J Health Sci	Patient/Injury factors for LS or Amp	Mixed etiology
Ogeng'o, J. A.; Obimbo, M. M.; King'ori, J.	Pattern of limb amputation in a Kenyan rural hospital	2009	Int Orthop	Patient/Injury factors for LS or Amp	Mixed etiology
Hull, J. B.; Bowyer, G. W.; Cooper, G. J.; Crane, J.	Pattern of injury in those dying from traumatic amputation caused by bomb blast	1994	Br J Surg	Immediate amputation factors	Mixed population
Patel, H. D.; Dryden, S.; Gupta, A.; Ang, S. C.	Pattern and mechanism of traumatic limb amputations after explosive blast: experience from the 07/07/05 London terrorist bombings	2012	J Trauma Acute Care Surg	Immediate amputation factors	No Controlled Comparison
Segrt, B.	Particularities of the therapeutic procedures and success in treatment of combat-related lower extremities injuries	2014	Vojnosanit Pregl	Environmental factors for LS or Amp	No Controlled Comparison

Seekamp, A.; Regel, G.; Hildebrand, F.; Sander, J.; Tscherne, H.	Parameters of multiple organ dysfunction fail to predict secondary amputation following limb salvage in multiply traumatized patients	1999	Injury	Patient/Injury factors for LS or Amp	no controlled comparisons
Sehirlioglu, A.; Ozturk, C.; Yazicioglu, K.; Tugcu, I.; Yilmaz, B.; Goktepe, A. S.	Painful neuroma requiring surgical excision after lower limb amputation caused by landmine explosions	2009	Int Orthop	Patient/Injury factors for LS or Amp	no controlled comparison
Ghallab, N. H.	Overview of vascular injuries in Yemen: Experience from a single tertiary referral hospital	2006	Surgical Practice	Immediate amputation factors; Patient/Injury factors for LS or Amp	Mixed Etiology
Purcell, R. L.; Cody, J. P.; Gordon, W.; Kilcoyne, K.	Outcomes of war related femoral neck fractures	2015	Injury	Immediate amputation factors; Patient/Injury factors for LS or Amp	No comparison of interest
Junge, T.; Bellamy, J.; Dowd, T.; Osborn, P.	Outcomes of Talus Fractures Associated With High-Energy Combat Trauma	2017	Foot Ankle Int	Immediate amputation factors	very low quality
Badash, I.; Burtt, K. E.; Leland, H. A.; Gould, D. J.; Rounds, A. D.; Azadgoli, B.; Patel, K. M.; Carey, J. N.	Outcomes of Soft Tissue Reconstruction for Traumatic Lower Extremity Fractures with Compromised Vascularity	2017	Am Surg	Patient/Injury factors for LS or Amp	no controlled comparison
Burkhardt, G. E.; Cox, M.; Clouse, W. D.; Porras, C.; Gifford, S. M.; Williams, K.; Propper, B. W.; Rasmussen, T. E.	Outcomes of selective tibial artery repair following combat-related extremity injury	2010	J Vasc Surg	Immediate amputation factors	Amputation/Salvage as outcome
Ratnayake, A.; Samarasinghe, B.; Bala, M.	Outcomes of popliteal vascular injuries at Sri Lankan war-front military hospital: case series of 44 cases	2014	Injury	Immediate amputation factors	Case series
Spear, M.	Outcomes of lower extremity injuries sustained during Operation Iraqi Freedom and Operation Enduring Freedom	2009	Plast Surg Nurs	Patient/Injury factors for LS or Amp	Review

Ramasamy, A.; Hill, A. M.; Masouros, S.; Gibb, I.; Phillip, R.; Bull, A. M.; Clasper, J. C.	Outcomes of IED foot and ankle blast injuries	2013	J Bone Joint Surg Am	Patient/Injury factors for LS or Amp	uninterpretable multivariate results and univariate very low
Lee, J. H.; Chung, D. W.; Han, C. S.	Outcomes of anterolateral thigh-free flaps and conversion from external to internal fixation with bone grafting in gustilo type IIIB open tibial fractures	2012	Microsurgery	Environmental factors for LS or Amp	No Controlled Comparison
Penn-Barwell, J. G.	Outcomes in lower limb amputation following trauma: a systematic review and meta-analysis	2011	Injury	Systematic Reviews	References Reviewed
Matsumoto, S.; Jung, K.; Smith, A.; Coimbra, R.	Outcomes Comparison Between Ligation and Repair after Major Lower Extremity Venous Injury	2018	Ann Vasc Surg	Patient/Injury factors for LS or Amp	Amputation/Salvage as Outcome
Highsmith, M. J.; Nelson, L. M.; Carbone, N. T.; Klenow, T. D.; Kahle, J. T.; Hill, O. T.; Maikos, J. T.; Kartel, M. S.; Randolph, B. J.	Outcomes Associated With the Intrepid Dynamic Exoskeletal Orthosis (IDEO): A Systematic Review of the Literature	2016	Mil Med	Systematic Reviews	References Reviewed
Bosse, M. J.; Teague, D.; Reider, L.; Gary, J. L.; Morshed, S.; Seymour, R. B.; Toledano, J.; Cannada, L. K.; Steverson, B.; Scharfstein, D. O.; Luly, J.; MacKenzie, E. J.	Outcomes After Severe Distal Tibia, Ankle, and/or Foot Trauma: Comparison of Limb Salvage Versus Transtibial Amputation (OUTLET)	2017	J Orthop Trauma	Patient/Injury factors for LS or Amp; Environmental factors for LS or Amp	Amputation/Salvage as Outcome
Clasper, J. C.; Rowley, D. I.	Outcome, following significant delays in initial surgery, of ballistic femoral fractures managed without internal or external fixation	2009	J Bone Joint Surg Br	Patient/Injury factors for LS or Amp	No controlled comparison

Khan, M. I.; Zafar, A.; Khan, N.; Saleem, M.; Mufti, N.	Outcome of tissue sparing surgical intervention in mine blast limb injuries	2006	J Coll Physicians Surg Pak	Immediate amputation factors; Patient/Injury factors for LS or Amp	*Mixed extremity
Pappas, P. J.; Haser, P. B.; Teehan, E. P.; Noel, A. A.; Silva, M. B., Jr.; Jamil, Z.; Swan, K. G.; Padberg, F. T., Jr.; Hobson, R. W., 2nd	Outcome of complex venous reconstructions in patients with trauma	1997	J Vasc Surg	Immediate amputation factors	No Controlled Comparisons
Alexander, J. J.; Piotrowski, J. J.; Graham, D.; Franceschi, D.; King, T.	Outcome of complex vascular and orthopedic injuries of the lower extremity	1991	Am J Surg	Patient/Injury factors for LS or Amp	not best available; very low quality
Khaneja, S. C.; Arrillaga, A.; Ernst, A.; Picard, D. L.; Pizzi, W. F.	Outcome in the management of penetrating venous injury	1994	Vascular Surgery	Patient/Injury factors for LS or Amp	no comparisons; case series
Boraiah, S.; Kemp, T. J.; Erwteman, A.; Lucas, P. A.; Asprinio, D. E.	Outcome following open reduction and internal fixation of open pilon fractures	2010	J Bone Joint Surg Am	Patient/Injury factors for LS or Amp	No RF of interest
Hurowitz, E. J.; Gould, J. S.; Fleisig, G. S.; Fowler, R.	Outcome analysis of agility total ankle replacement with prior adjunctive procedures: two to six year followup	2007	Foot Ankle Int	Patient/Injury factors for LS or Amp	Mixed etiology
Kinner, B.; Tietz, S.; Muller, F.; Prantl, L.; Nerlich, M.; Roll, C.	Outcome after complex trauma of the foot	2011	J Trauma	Immediate amputation factors; Patient/Injury factors for LS or Amp	Mixed Etiology
Zivkovic, O.; Poljak-Guberina, R.; Muljacic, A.; Guberina, M.	Our experience with modified osteomyoplasty for reamputation of war-related transtibial amputees	2009	Mil Med	Patient/Injury factors for LS or Amp	no RF of interest;
Tribble, D. R.; Lewandowski, L. R.; Potter, B. K.; Petfield, J. L.; Stinner, D. J.; Ganesan, A.; Krauss, M.; Murray, C. K.	Osteomyelitis Risk Factors Related to Combat Trauma Open Tibia Fractures: A Case-Control Analysis	2018	J Orthop Trauma	Immediate amputation factors; Patient/Injury factors for LS or Amp	
Vallier, H. A.; Fitzgerald, S. J.; Beddow, M. E.; Sontich, J. K.; Patterson, B. M.	Osteocutaneous pedicle flap transfer for salvage of transtibial amputation after severe lower-extremity injury	2012	J Bone Joint Surg Am	Patient/Injury factors for LS or Amp	14 subjects included;

Patterson, B. M.; Smith, A. A.; Holdren, A. M.; Sontich, J. K.	Osteocutaneous pedicle flap of the foot for salvage of below-knee amputation level after lower extremity injury	2000	Journal of Trauma - Injury, Infection and Critical Care	Patient/Injury factors for LS or Amp	case reports
Durrant, C. A.; Mackey, S. P.	Orthoplastic classification systems: the good, the bad, and the ungainly	2011	Ann Plast Surg	Patient/Injury factors for LS or Amp; Systematic Reviews	review
Jie, Q.; Yang, L.; Zhu, Q. S.; Li, M. Q.; Li, Z.; Zhao, G. Y.; Hu, Y. Y.	Orthopedic trauma of limbs associated with vascular injuries	2007	Chin J Traumatol	Patient/Injury factors for LS or Amp	Mixed population
Christensen, J.; Spence, S.; Watson, D.; Shah, A.; Maxson, B.; Infante, A.; Sanders, R.; Mir, H. R.	Orthopaedic Watercraft Injuries: Characterization of Mechanisms, Fractures, and Complications in 216 Injuries	2018	J Orthop Trauma	Patient/Injury factors for LS or Amp	No controlled comparison
Bar-On, E.; Lebel, E.; Kreiss, Y.; Merin, O.; Benedict, S.; Gill, A.; Lee, E.; Pirotsky, A.; Shirov, T.; Blumberg, N.	Orthopaedic management in a mega mass casualty situation. The Israel Defence Forces Field Hospital in Haiti following the January 2010 earthquake	2011	Injury	Immediate amputation factors	Mixed population
Lambert, E. W.; Simpson, R. B.; Marzouk, A.; Unger, D. V.	Orthopaedic injuries among survivors of USS COLE attack	2003	Journal of Orthopaedic Trauma	Immediate amputation factors; Patient/Injury factors for LS or Amp	Case series
Gandhi, R. R.; Overton, T. L.; Haut, E. R.; Lau, B.; Vallier, H. A.; Rohs, T.; Hasenboehler, E.; Lee, J. K.; Alley, D.; Watters, J.; Rogers, F. B.; Shafi, S.	Optimal timing of femur fracture stabilization in polytrauma patients: A practice management guideline from the Eastern Association for the Surgery of Trauma	2014	Journal of Trauma and Acute Care Surgery	Systematic Reviews	References Reviewed
Tintle, S. M.; Keeling, J. J.; Forsberg, J. A.; Shawen, S. B.; Andersen, R. C.; Potter, B. K.	Operative complications of combat-related transtibial amputations: a comparison of the modified burgess and modified Ertl tibiofibular synostosis techniques	2011	J Bone Joint Surg Am	Patient/Injury factors for LS or Amp	No RF of interest;
Andersen, R. C.; Wilson, K. W.; Bojescul, J. A.; Mickel,	Open, combat-related loss, or disruption of the knee extensor mechanism: treatment	2014	J Orthop Trauma	Patient/Injury factors for LS or Amp	<10 pts per group;

T. J.; Gordon, W. T.; Potter, B. K.	strategies, classification, and outcomes				
Soucacos, P. N.; Beris, A. E.; Xenakis, T. A.; Malizos, K. N.; Vekris, M. D.	Open type IIIB and IIIC fractures treated by an orthopaedic microsurgical team	1995	Clin Orthop Relat Res	Immediate amputation factors; Patient/Injury factors for LS or Amp; Environmental factors for LS or Amp	No Comparisons
Melvin, J. S.; Dombroski, D. G.; Torbert, J. T.; Kovach, S. J.; Esterhai, J. L.; Mehta, S.	Open tibial shaft fractures: II. Definitive management and limb salvage	2010	J Am Acad Orthop Surg	Patient/Injury factors for LS or Amp	Review
Georgiadis, G. M.; Behrens, F. F.; Joyce, M. J.; Earle, A. S.; Simmons, A. L.	Open tibial fractures with severe soft-tissue loss. Limb salvage compared with below-the-knee amputation	1993	J Bone Joint Surg Am	Immediate amputation factors; Patient/Injury factors for LS or Amp; Cost Analysis	prospective univariate; very low quality
Georgiadis, G. M.; Behrens, F. F.; Joyce, M. J.; Earle, A. S.; Simmons, A. L.	Open tibial fractures with severe soft-tissue loss	1993	Journal of Bone and Joint Surgery - Series A	Patient/Injury factors for LS or Amp; Cost Analysis	Duplicate aricle; same as AAOS ID 2622
Enninghorst, N.; McDougall, D.; Hunt, J. J.; Balogh, Z. J.	Open tibia fractures: timely debridement leaves injury severity as the only determinant of poor outcome	2011	J Trauma	Immediate amputation factors; Patient/Injury factors for LS or Amp	Mixed etiology
Dugan, T. R.; Hubert, M. G.; Siska, P. A.; Pape, H. C.; Tarkin, I. S.	Open supracondylar femur fractures with bone loss in the polytraumatized patient - Timing is everything!	2013	Injury	Patient/Injury factors for LS or Amp	No controlled comparison
Henning, J. A.; Jones, C. B.; Sietsema, D. L.; Bohay, D. R.; Anderson, J. G.	Open reduction internal fixation versus primary arthrodesis for lisfranc injuries: A prospective randomized study	2009	Foot and Ankle International	Patient/Injury factors for LS or Amp	Doesn't address question of interest;
Lawrence, S. J.; Singhal, M.	Open hindfoot injuries	2007	J Am Acad Orthop Surg	Systematic Reviews	review
Heier, K. A.; Infante, A. F.; Walling, A. K.; Sanders, R. W.	Open fractures of the calcaneus: soft-tissue injury determines outcome	2003	J Bone Joint Surg Am	Immediate amputation factors; Patient/Injury factors for LS or Amp	No comparison of interest

Tajsic, N. B.; Sambath, P.; Nguon, S.; Sokh, V.; Chheang, V.; Landsem, G.; Zaletel, I.; Husum, H.	Open Fracture Management in Low-Resource Settings: A Medical Training Experience in Cambodian Hospitals	2017	World J Surg	Environmental factors for LS or Amp	No relevant RFs
Wright, D. G.; Covey, D. C.; Born, C. T.; Sadasivan, K. K.	Open dislocation of the knee	1995	J Orthop Trauma	Patient/Injury factors for LS or Amp	18 subjects included; no comparisons
Worsham, J. R.; Elliott, M. R.; Harris, A. M.	Open Calcaneus Fractures and Associated Injuries	2016	J Foot Ankle Surg	Immediate amputation factors; Patient/Injury factors for LS or Amp; Environmental factors for LS or Amp	No Controlled Comparison
Yazar, S.; Lin, C. H.; Wei, F. C.	One-stage reconstruction of composite bone and soft-tissue defects in traumatic lower extremities	2004	Plast Reconstr Surg	Patient/Injury factors for LS or Amp	case series
Fuzier, R.; Rousset, J.; Bataille, B.; Salces-y-NÃ©dÃ©o, A.; MaguÃ¨s, J. P.	One half of patients reports persistent pain three months after orthopaedic surgery	2015	Anaesthesia Critical Care and Pain Medicine	Patient/Injury factors for LS or Amp; Environmental factors for LS or Amp	No relevant RFs; no comparison group
Hertel, R.; Lambert, S. M.; MÃ¼ller, S.; Ballmer, F. T.; Ganz, R.	On the timing of soft-tissue reconstruction for open fractures of the lower leg	1999	Archives of Orthopaedic and Trauma Surgery	Immediate amputation factors	No controlled comparisons
Dua, A.; Desai, S. S.; Johnston, S.; Chinapuvvula, N. R.; DuBose, J.; Charlton-Ouw, K.; Azizzadeh, A.; Burgess, A.; Wade, C. E.; Fox, C. J.; Holcomb, J. B.	Observation may be an inadequate approach for injured extremities with single tibial vessel run-off	2015	Vascular	Immediate amputation factors; Patient/Injury factors for LS or Amp	Unclear Etiology ; no controlled comparison
Johansen, K.; Daines, M.; Howey, T.; Helfet, D.; Hansen, S. T., Jr.	Objective criteria accurately predict amputation following lower extremity trauma	1990	J Trauma	Cost Analysis	Amp/Sal as outcome - only use for cost analysis
Schlatterer, D. R.; Hirschfeld, A. G.; Webb, L. X.	Negative pressure wound therapy in grade IIIB tibial fractures: fewer infections and fewer flap procedures?	2015	Clin Orthop Relat Res	Systematic Reviews	References Reviewed

Kauvar, D. S.; Sarfati, M. R.; Kraiss, L. W.	National trauma databank analysis of mortality and limb loss in isolated lower extremity vascular trauma	2011	J Vasc Surg	Immediate amputation factors	Amputation/Salvage as outcome
Zayed, M.; Bech, F.; Hernandez-Boussard, T.	National review of factors influencing disparities and types of major lower extremity amputations	2014	Ann Vasc Surg	Immediate amputation factors	No trauma
Kim, J. J.; Kelly, Iv J. D.	Multiple ligament injured knee: Priorities and treatment options	2003	Current Opinion in Orthopaedics	Immediate amputation factors; Patient/Injury factors for LS or Amp	Commentary
Krishnan, A.; Pamecha, C.; Patwa, J. J.	Modified Ilizarov technique for infected nonunion of the femur: the principle of distraction-compression osteogenesis	2006	J Orthop Surg (Hong Kong)	Immediate amputation factors	case series
Ramasamy, A.; Hill, A. M.; Phillip, R.; Gibb, I.; Bull, A. M. J.; Clasper, J. C.	The modern "deck-slap" injury-calcaneal blast fractures from vehicle explosions	2011	Journal of Trauma - Injury, Infection and Critical Care	Patient/Injury factors for LS or Amp	Prospective univariate; No Controlled Comparisons
Bevevino, A. J.; Dickens, J. F.; Potter, B. K.; Dworak, T.; Gordon, W.; Forsberg, J. A.	A model to predict limb salvage in severe combat-related open calcaneus fractures	2014	Clin Orthop Relat Res	Immediate amputation factors; Patient/Injury factors for LS or Amp	inadequate data on individual risk factors to answer the pico question. compares overall model fit between multiple logistic regression and neural network model, and not the individual risk factors relevant to the PICO question
Li, W. S.; Chan, S. Y.; Chau, W. W.; Law, S. W.; Chan, K. M.	Mobility, prosthesis use and health-related quality of life of bilateral lower limb amputees from the 2008 Sichuan earthquake	2018	Prosthet Orthot Int	Environmental factors for LS or Amp	No relevant RFs
Nikolic, D.; Draskovic, V.; Vulovic, R.; Mladenovic, M.	Missile injuries of the knee joint	2000	Injury	Patient/Injury factors for LS or Amp	prospective univariate; very low quality

Has, B.; Jovanovic, S.; Wertheimer, B.; Kondza, G.; Grdic, P.; Leko, K.	Minimal fixation in the treatment of open hand and foot bone fractures caused by explosive devices: case series	2001	Croat Med J	Immediate amputation factors; Patient/Injury factors for LS or Amp	No comparison of interest
Rivera, J. C.; Greer, R. M.; Spott, M. A.; Johnson, A. E.	The Military Orthopedic Trauma Registry: The potential of a specialty specific process improvement tool	2016	J Trauma Acute Care Surg	Patient/Injury factors for LS or Amp	No controlled comparisons
Doukas, W. C.; Hayda, R. A.; Frisch, H. M.; Andersen, R. C.; Mazurek, M. T.; Ficke, J. R.; Keeling, J. J.; Pasquina, P. F.; Wain, H. J.; Carlini, A. R.; MacKenzie, E. J.	The Military Extremity Trauma Amputation/Limb Salvage (METALS) study: outcomes of amputation versus limb salvage following major lower-extremity trauma	2013	J Bone Joint Surg Am	Systematic Reviews	References Reviewed
Melcer, T.; Walker, G. J.; Galarneau, M.; Belnap, B.; Konoske, P.	Midterm health and personnel outcomes of recent combat amputees	2010	Mil Med	Environmental factors for LS or Amp	No controlled comparison; No relevant RFs
Isenberg, J. S.; Costigan, W.	Microvascular transplantation in the salvage of lower extremity trauma in the elderly	1996	Ann Plast Surg	Patient/Injury factors for LS or Amp	Wrong population (elderly); only 10 subjects included
Francel, T. J.; Vander Kolk, C. A.; Hoopes, J. E.; Manson, P. N.; Yaremchuk, M. J.	Microvascular soft-tissue transplantation for reconstruction of acute open tibial fractures: timing of coverage and long-term functional results	1992	Plast Reconstr Surg	Patient/Injury factors for LS or Amp	mixed etiology
Peat, B. G.; Liggins, D. F.	Microvascular soft tissue reconstruction for acute tibial fractures--late complications and the role of bone grafting	1990	Ann Plast Surg		retrospective, univariate - very low quality
Klem, C.; Sniezek, J. C.; Moore, B.; Davis, M. R.; Coppit, G.; Schmalbach, C.	Microvascular reconstructive surgery in Operations Iraqi and Enduring Freedom: the US military experience performing free flaps in a combat zone	2013	J Trauma Acute Care Surg	Immediate amputation factors; Patient/Injury factors for LS or Amp	Mixed Population

Santanelli di Pompeo, F.; Pugliese, P.; Sorotos, M.; Rubino, C.; Paolini, G.	Microvascular reconstruction of complex foot defects, a new anatomo-functional classification	2015	Injury	Patient/Injury factors for LS or Amp	Mixed etiology
Musharrafieh, R.; Osmani, O.; Saghieh, S.; Elhassan, B.; Atiyeh, B.	Microvascular composite tissue transfer for the management of type IIIB and IIIC fractures of the distal leg and compound foot fractures	1999	J Reconstr Microsurg	Patient/Injury factors for LS or Amp	case series
Xiong, L.; Gazyakan, E.; WÃ¤hmann, M.; Bigdeli, A.; Kremer, T.; Harhaus, L.; Sun, J.; Kneser, U.; Hirche, C.	Microsurgical reconstruction for postâ??traumatic defects of lower leg in the elderly: A comparative study	2016	Injury	Immediate amputation factors	Unclear etiology
Starnes-Roubaud, M. J.; Peric, M.; Chowdry, F.; Nguyen, J. T.; Schooler, W.; Sherman, R.; Carey, J. N.	Microsurgical Lower Extremity Reconstruction in the Subacute Period: A Safe Alternative	2015	Plast Reconstr Surg Glob Open	Patient/Injury factors for LS or Amp	
Ninkovic, M.; Voigt, S.; Dornseifer, U.; Lorenz, S.; Ninkovic, M.	Microsurgical Advances in Extremity Salvage	2012	Clinics in Plastic Surgery	Immediate amputation factors; Patient/Injury factors for LS or Amp; Environmental factors for LS or Amp	Commentary
Perkins, Z. B.; Yet, B.; Glasgow, S.; Cole, E.; Marsh, W.; Brohi, K.; Rasmussen, T. E.; Tai, N. R.	Meta-analysis of prognostic factors for amputation following surgical repair of lower extremity vascular trauma	2015	Br J Surg	Systematic Reviews	References Reviewed
Akula, M.; Gella, S.; Shaw, C. J.; McShane, P.; Mohsen, A. M.	A meta-analysis of amputation versus limb salvage in mangled lower limb injuries--the patient perspective	2011	Injury	Systematic Reviews	References Reviewed
Penn-Barwell, J. G.; Myatt, R. W.; Bennett, P. M.; Sargeant, I. D.	Medium-term outcomes following limb salvage for severe open tibia fracture are similar to trans-tibial amputation	2015	Injury	Patient/Injury factors for LS or Amp	prospective univariate;

Dharm-Datta, S.; McLenaghan, J.	Medical lessons learnt from the US and Canadian experience of treating combat casualties from Afghanistan and Iraq	2013	J R Army Med Corps		review
Momoh, A. O.; Chung, K. C.	Measuring outcomes in lower limb surgery	2013	Clin Plast Surg	Systematic Reviews	References Reviewed
Roorda, L. D.; Roebroeck, M. E.; Van Tilburg, T.; Molenaar, I. W.; Lankhorst, G. J.; Bouter, L. M.	Measuring activity limitations in walking: Development of a hierarchical scale for patients with lower-extremity disorders who live at home	2005	Archives of Physical Medicine and Rehabilitation		Doesn't address question of interest;
Fodor, L.; Sobec, R.; Sita-Alb, L.; Fodor, M.; Ciuce, C.	Mangled lower extremity: can we trust the amputation scores?	2012	Int J Burns Trauma	Systematic Reviews	References Reviewed
Poole, G. V.; Agnew, S. G.; Griswold, J. A.; Rhodes, R. S.	The mangled lower extremity: can salvage be predicted?	1994	Am Surg	Immediate amputation factors	Amputation/Salvage as outcome; too few pts; no controlled comparison
Hoogendoorn, J. M.; Van der Werken, C.	The mangled leg. Decision-making based on scoring systems and outcome	2002	European Journal of Trauma	Immediate amputation factors; Patient/Injury factors for LS or Amp	Review
Shawen, S. B.; Keeling, J. J.; Branstetter, J.; Kirk, K. L.; Ficke, J. R.	The mangled foot and leg: salvage versus amputation	2010	Foot Ankle Clin	Immediate amputation factors	review
Hallock, G. G.	The mangled foot and ankle: soft tissue salvage techniques	2014	Clin Podiatr Med Surg	Systematic Reviews	review
Roessler, M. S.; Wisner, D. H.; Holcroft, J. W.	The mangled extremity. When to amputate?	1991	Arch Surg	Immediate amputation factors	retrospective, no controlled comparison
Beranger, F.; Lesquen, H. D.; Aoun, O.; Roqueplo, C.; Meyrat, L.; Natale, C.; Avaro, J. P.	Management of war-related vascular wounds in French role 3 hospital during the Afghan campaign	2017	Injury	Immediate amputation factors; Patient/Injury factors for LS or Amp	Mixed population
Jawas, A.; Abbas, A. K.; Nazzal, M.; Albader, M.; Abu-Zidan, F. M.	Management of war-related vascular injuries: experience from the second gulf war	2013	World J Emerg Surg	Patient/Injury factors for LS or Amp	No controlled comparison

Al-Ganadi, A.	Management of Vascular Injury during Current Peaceful Yemeni Revolution	2015	Ann Vasc Surg	Patient/Injury factors for LS or Amp	no controlled comparison; case series
Trooskin, S. Z.; Sclafani, S.; Winfield, J.; Duncan, A. O.; Scalea, T.; Vieux, E.; Atweh, N.; Gertler, J.	The management of vascular injuries of the extremity associated with civilian firearms	1993	Surg Gynecol Obstet	Patient/Injury factors for LS or Amp	Mixed population
Kurtoglu, M.; Ertekin, C.; Bulut, T.; Belgerden, S.; Genc, F. A.	Management of vascular injuries of the extremities. One hundred and fifteen cases	1991	Int Angiol	Immediate amputation factors; Patient/Injury factors for LS or Amp	*Mixed population (lower and upper extremities)
Sciarretta, J. D.; Macedo, F. I.; Otero, C. A.; Figueroa, J. N.; Pizano, L. R.; Namias, N.	Management of traumatic popliteal vascular injuries in a level I trauma center: A 6-year experience	2015	Int J Surg	Patient/Injury factors for LS or Amp	retrospective univariate; no RF of interest
Pipitone, P. S.; Rehman, S.	Management of Traumatic Bone Loss in the Lower Extremity	2014	Orthopedic Clinics of North America	Immediate amputation factors; Patient/Injury factors for LS or Amp	Review
Small, J. O.; Mollan, R. A.	Management of the soft tissues in open tibial fractures	1992	Br J Plast Surg	Patient/Injury factors for LS or Amp	Case series; no controlled comparison
Naique, S. B.; Pearse, M.; Nanchahal, J.	Management of severe open tibial fractures: the need for combined orthopaedic and plastic surgical treatment in specialist centres	2006	J Bone Joint Surg Br	Patient/Injury factors for LS or Amp	No RF of interest;
Khan, U.; Smitham, P.; Pearse, M.; Nanchahal, J.	Management of severe open ankle injuries	2007	Plastic and Reconstructive Surgery	Patient/Injury factors for LS or Amp	too few pts; prospective univariate;
Greer, L. T.; Patel, B.; Via, K. C.; Bowman, J. N.; Weber, M. A.; Fox, C. J.	Management of secondary hemorrhage from early graft failure in military extremity wounds	2012	J Trauma Acute Care Surg	Patient/Injury factors for LS or Amp	case series
Sultan, S.; Shah, A. A.	Management of open tibial fractures at Ayub Teaching Hospital, Abbottabad	2001	J Ayub Med Coll Abbottabad	Patient/Injury factors for LS or Amp	case series
Hull, P.	The management of open tibial fractures	2008	European Journal of Orthopaedic Surgery and Traumatology	Patient/Injury factors for LS or Amp	Review

Whitaker, I. S.; Rozen, W. M.; Shokrollahi, K.	The management of open lower limb fractures: the journey from amputation to evidence-based reconstruction and harpsichords	2011	Annals of plastic surgery	Immediate amputation factors	Review
Atef, A.; El-Tantawy, A.	Management of open infected comminuted tibial fractures using Ilizarov concept	2014	Eur J Orthop Surg Traumatol	Patient/Injury factors for LS or Amp	No controlled comparison
Seligson, D.; Ostermann, P. A.; Henry, S. L.; Wolley, T.	The management of open fractures associated with arterial injury requiring vascular repair	1994	J Trauma	Immediate amputation factors; Patient/Injury factors for LS or Amp; Environmental factors for LS or Amp	No Controlled Comparison; Mixed Etiology; Mixed Population
McKinley, T. O.; D'Alleyrand, J. C.; Valerio, I.; Schoebel, S.; Tetsworth, K.; Elster, E. A.	Management of Mangled Extremities and Orthopaedic War Injuries	2018	J Orthop Trauma	Systematic Reviews	review
Lu, Y.; Huang, Y.; Zhao, L.; Li, R.; Shi, K.; Ma, P.; Chu, X.	Management of major arterial injuries of the limbs in 166 cases	1993	Iowa Orthop J	Patient/Injury factors for LS or Amp	mixed extremity; case series;
Martin, L. C.; McKenney, M. G.; Sosa, J. L.; Ginzburg, E.; Puente, I.; Sleeman, D.; Zeppa, R.	Management of lower extremity arterial trauma	1994	J Trauma	Patient/Injury factors for LS or Amp	No RF of interest;
Pourzand, A.; Fakhri, B. A.; Azhough, R.; Hassanzadeh, M. A.; Hashemzadeh, S.; Bayat, A. M.	Management of high-risk popliteal vascular blunt trauma: clinical experience with 62 cases	2010	Vasc Health Risk Manag	Immediate amputation factors	Amputation/Salvage as outcome
Ramasamy, P. R.	Management of Gustilo Anderson III B open tibial fractures by primary fascio-septo-cutaneous local flap and primary fixation: The 'fix and shift' technique	2017	Indian J Orthop	Immediate amputation factors; Patient/Injury factors for LS or Amp	No controlled comparison
Harjai, M. M.; Agarwal, D. C.; Kumar, S.; Dave, P.; Jog, S. S.	Management of Combat Related Vascular Injuries in a Zonal Hospital	2007	Med J Armed Forces India	Patient/Injury factors for LS or Amp	No controlled comparison; case series

Gray, J. L.	Management of Arterial and Venous Injuries in the Dislocated Knee	2015	Operative Techniques in Sports Medicine	Systematic Reviews	review
Bennett, P. M.; Sargeant, I. D.; Myatt, R. W.; Penn-Barwell, J. G.	The management and outcome of open fractures of the femur sustained on the battlefield over a ten-year period	2015	Bone Joint J	Patient/Injury factors for LS or Amp	No comparison group
Coupland, R. M.	A management algorithm for chronically exposed war wounds of bone	1990	Injury	Patient/Injury factors for LS or Amp	No usable data
Karavias, D.; Korovessis, P.; Filos, K. S.; Siamplis, D.; Petrocheilos, J.; Androulakis, J.	Major vascular lesions associated with orthopaedic injuries	1992	J Orthop Trauma	Patient/Injury factors for LS or Amp	No Controlled Comparison
Akiode, O.; Shonubi, A. M.; Musa, A.; Sule, G.	Major limb amputations: an audit of indications in a suburban surgical practice	2005	J Natl Med Assoc	Patient/Injury factors for LS or Amp	Mixed population; unclear trauma
Copuroglu, C.; Heybeli, N.; Ozcan, M.; Yilmaz, B.; Ciftdemir, M.; Copuroglu, E.	Major extremity injuries associated with farmyard accidents	2012	The Scientific World Journal	Immediate amputation factors; Patient/Injury factors for LS or Amp	*Mixed population (lower and upper extremities)
Farrokhi, S.; Perez, K.; Eskridge, S.; Clouser, M.	Major deployment-related amputations of lower and upper limbs, active and reserve components, U.S. Armed Forces, 2001-2017	2018	Msmr	Patient/Injury factors for LS or Amp	No risk factors of interest; no controlled comparison
Bhatnagar, V.; Richard, E.; Melcer, T.; Walker, J.; Galarneau, M.	Lower-limb amputation and effect of posttraumatic stress disorder on Department of Veterans Affairs outpatient cost trends	2015	J Rehabil Res Dev	Cost Analysis	
Kaczynski, J.; Dillon, M.; Hilton, J.	Lower limb trauma: limb salvage or an early amputation?	2012	Pol Przegl Chir	Immediate amputation factors	review
Fasika, O. M.; Stilwell, J. H.	Lower limb trauma: a review of 40 cases treated at the regional burns and plastic surgery unit, Merseyside, England	1994	East Afr Med J	Patient/Injury factors for LS or Amp	Unclear trauma; no relevant RF

Pretre, R.; Bruschweiler, I.; Rossier, J.; Chilcott, M.; Bednarkiewicz, M.; Kursteiner, K.; Kalangos, A.; Hoffmeyer, P.; Faidutti, B.	Lower limb trauma with injury to the popliteal vessels	1996	J Trauma	Patient/Injury factors for LS or Amp	No Controlled Comparison
Baque, P.; Trojani, C.; Batt, M.; Hassen-Khodja, R.; Bariseel, H.; Pittaluga, P.; Declemy, S.; Prate, B.; Le Bas, P.	Lower limb trauma caused by power-driven cultivators: report of 23 cases	1998	J Trauma	Immediate amputation factors	No controlled comparison
Tomaino, M. M.	Lower limb salvage: microvascular reconstruction of post-traumatic soft tissue and skeletal defects	1995	Orthopedics	Systematic Reviews	review
Mardian, S.; Schaser, K. D.; Wichlas, F.; Jakobs, C.; Kraphol, B.; Schwabe, P.	Lower limb salvage: indication and decision making for replantation, revascularisation and amputation	2014	Acta Chir Orthop Traumatol Cech	Systematic Reviews	References Reviewed
Ong, Y. S.; Levin, L. S.	Lower limb salvage in trauma	2010	Plast Reconstr Surg	Systematic Reviews	review
Battiston, B.; Tos, P.; Pontini, I.; Ferrero, S.	Lower limb replantations: indications and a new scoring system	2002	Microsurgery	Immediate amputation factors	No Controlled Comparison
Necmioglu, S.; Subasi, M.; Kayikci, C.; Young, D. B.	Lower limb landmine injuries	2004	Prosthet Orthot Int	Immediate amputation factors; Patient/Injury factors for LS or Amp	No Controlled Comparison
Jacobs, N.; Rourke, K.; Rutherford, J.; Hicks, A.; Smith, S. R.; Templeton, P.; Adams, S. A.; Jansen, J. O.	Lower limb injuries caused by improvised explosive devices: proposed 'Bastion classification' and prospective validation	2014	Injury	Patient/Injury factors for LS or Amp	No controlled comparison
Oostenbroek, H. J.; Brand, R.; van Roermund, P. M.	Lower limb deformity due to failed trauma treatment corrected with the Ilizarov technique: factors affecting the complication rate in 52 patients	2009	Acta Orthop	Patient/Injury factors for LS or Amp	not best available; very low quality

Kidmas, A. T.; Nwadiaro, C. H.; Igun, G. O.	Lower limb amputation in Jos, Nigeria	2004	East Afr Med J	Immediate amputation factors	Mixed etiology
Walker, C. R.; Ingram, R. R.; Hullin, M. G.; McCreath, S. W.	Lower limb amputation following injury: a survey of long-term functional outcome	1994	Injury	Patient/Injury factors for LS or Amp	No RF of interest
Hierner, R.; Berger, A. K.; Frederix, P. R.	Lower leg replantation--decision-making, treatment, and long-term results	2007	Microsurgery	Systematic Reviews	References Reviewed
Zaraca, F.; Ponzoni, A.; Stringari, C.; Ebner, J. A.; Giovannetti, R.; Ebner, H.	Lower extremity traumatic vascular injury at a level II trauma center: an analysis of limb loss risk factors and outcomes	2011	Minerva Chir	Immediate amputation factors	prospective univariate; very low quality
Tampe, U.; Weiss, R. J.; Stark, B.; Sommar, P.; Al Dabbagh, Z.; Jansson, K. A.	Lower extremity soft tissue reconstruction and amputation rates in patients with open tibial fractures in Sweden during 1998-2010	2014	BMC Surg	Patient/Injury factors for LS or Amp	mixed etiology
Tampe, U., Widmer, L. W., Weiss, R. J., Jansson, K	Mortality, risk factors and causes of death in Swedish patients with open tibial fractures - a nationwide study of 3, 777 patients	2018	*Scand J Trauma Resusc Emerg Med*	Immediate amputation factors	Confounded comparison
Starman, J. S.; Castillo, R. C.; Bosse, M. J.; MacKenzie, E. J.	Proximal tibial metaphyseal fractures with severe soft tissue injury: clinical and functional results at 2 years	2010	*Clin Orthop Relat Res*	Patient/Injury factors for LS or Amp	Very Low Quality
Franco, M. J.; Nicoson, M. C.; Parikh, R. P.; Tung, T. H.	Lower Extremity Reconstruction with Free Gracilis Flaps	2017	J Reconstr Microsurg	Patient/Injury factors for LS or Amp	No usable data
Heller, L.; Levin, L. S.	Lower extremity microsurgical reconstruction	2001	Plastic and Reconstructive Surgery	Immediate amputation factors; Patient/Injury factors for LS or Amp; Environmental factors for LS or Amp	Review

Bibbo, C.; Nelson, J.; Fischer, J. P.; Wu, L. C.; Low, D. W.; Mehta, S.; Kovach, S. J.; Levin, L. S.	Lower Extremity Limb Salvage After Trauma: Versatility of the Anterolateral Thigh Free Flap	2015	J Orthop Trauma	Patient/Injury factors for LS or Amp	Unclear trauma
Wells, M. D.; Bowen, C. V.; Manktelow, R. T.; Graham, J.; Boyd, J. B.	Lower extremity free flaps: a review	1996	Can J Surg	Patient/Injury factors for LS or Amp	Mixed etiology;
Tintle, S. M.; Forsberg, J. A.; Keeling, J. J.; Shawen, S. B.; Potter, B. K.	Lower extremity combat-related amputations	2010	J Surg Orthop Adv	Immediate amputation factors	Review
Higgins, T. F.; Klatt, J. B.; Beals, T. C.	Lower Extremity Assessment Project (LEAP) - The Best Available Evidence on Limb-Threatening Lower Extremity Trauma	2010	Orthopedic Clinics of North America	Immediate amputation factors; Patient/Injury factors for LS or Amp; Environmental factors for LS or Amp	Review
Hafez, H. M.; Woolgar, J.; Robbs, J. V.	Lower extremity arterial injury: results of 550 cases and review of risk factors associated with limb loss	2001	J Vasc Surg	Immediate amputation factors	Amputation/Salvage as outcome
Topal, A. E.; Eren, M. N.; Celik, Y.	Lower extremity arterial injuries over a six-year period: outcomes, risk factors, and management	2010	Vasc Health Risk Manag	Patient/Injury factors for LS or Amp	Amp/Sal as outcome
Perkins, Z. B.; Yet, B.; Glasgow, S.; Marsh, D. W. R.; Tai, N. R. M.; Rasmussen, T. E.	Long-term, patient-centered outcomes of lower-extremity vascular trauma	2018	J Trauma Acute Care Surg	Patient/Injury factors for LS or Amp	prospective univariate;
Esfandiari, E.; Yavari, A.; Karimi, A.; Masoumi, M.; Soroush, M.; Saeedi, H.	Long-term symptoms and function after war-related lower limb amputation: A national cross-sectional study	2018	Acta Orthop Traumatol Turc	Patient/Injury factors for LS or Amp	No usable data; does not address question of interest;
Lowenberg, D. W.; Buntic, R. F.; Buncke, G. M.; Parrett, B. M.	Long-term results and costs of muscle flap coverage with Ilizarov bone transport in lower limb salvage	2013	J Orthop Trauma	Immediate amputation factors	No controlled comparisons; No RF of interest

Giannoudis, P. V.; Harwood, P. J.; Kontakis, G.; Allami, M.; Macdonald, D.; Kay, S. P.; Kind, P.	Long-term quality of life in trauma patients following the full spectrum of tibial injury (fasciotomy, closed fracture, grade IIIB/IIIC open fracture and amputation)	2009	Injury	Patient/Injury factors for LS or Amp	mixed etiology
Ebrahimzadeh, M. H.; Rajabi, M. T.	Long-term outcomes of patients undergoing war-related amputations of the foot and ankle	2007	J Foot Ankle Surg	Patient/Injury factors for LS or Amp	No RF of interest
Finkler, E. S.; Marchwiany, D. A.; Schiff, A. P.; Pinzur, M. S.	Long-term Outcomes Following Syme's Amputation	2017	Foot Ankle Int	Patient/Injury factors for LS or Amp	Mixed etiology
Nithyananth, M.; Boopalan, P. R.; Titus, V. T.; Sundararaj, G. D.; Lee, V. N.	Long-term outcome of high-energy open Lisfranc injuries: a retrospective study	2011	J Trauma	Patient/Injury factors for LS or Amp	Too few pts per group
Dougherty, P. J.	Long-term follow-up study of bilateral above-the-knee amputees from the Vietnam War	1999	J Bone Joint Surg Am	Patient/Injury factors for LS or Amp	No comparisons
Dougherty, P. J.	Long-term follow-up of unilateral transfemoral amputees from the Vietnam war	2003	J Trauma	Patient/Injury factors for LS or Amp	prospective univariate; no RF of interest
Dua, A.; Patel, B.; Kragh, J. F., Jr.; Holcomb, J. B.; Fox, C. J.	Long-term follow-up and amputation-free survival in 497 casualties with combat-related vascular injuries and damage-control resuscitation	2012	J Trauma Acute Care Surg	Patient/Injury factors for LS or Amp	Mixed extremity
Williams, M. O.	Long-term cost comparison of major limb salvage using the Ilizarov method versus amputation	1994	Clin Orthop Relat Res	Patient/Injury factors for LS or Amp	cost analysis; too few pts
Ebrahimzadeh, M. H.; Kachooei, A. R.; Soroush,	Long-term clinical outcomes of war-related hip disarticulation and transpelvic amputation	2013	J Bone Joint Surg Am	Patient/Injury factors for LS or Amp	No controlled comparisons

M. R.; Hasankhani, E. G.; Razi, S.; Birjandinejad, A.					
Ebrahimzadeh, M. H.; Moradi, A.; Khorasani, M. R.; Hallaj-Moghaddam, M.; Kachooei, A. R.	Long-term clinical outcomes of war-related bilateral lower extremities amputations	2015	Injury	Patient/Injury factors for LS or Amp	No RF of interest; No controlled comparison
Zhou, Y.; Wang, Y.; Liu, L.; Zhou, Z.; Cao, X.	Locking compression plate as an external fixator in the treatment of closed distal tibial fractures	2015	Int Orthop	Patient/Injury factors for LS or Amp	No outcomes of interest
Dorweiler, B.; Neufang, A.; Schmiedt, W.; Hessmann, M. H.; Rudig, L.; Rommens, P. M.; Oelert, H.	Limb trauma with arterial injury: long-term performance of venous interposition grafts	2003	Thorac Cardiovasc Surg	Patient/Injury factors for LS or Amp	Mixed population;
Mangan, K. I.; Kingsbury, T. D.; Mazzone, B. N.; Wyatt, M. P.; Kuhn, K. M.	Limb Salvage With Intrepid Dynamic Exoskeletal Orthosis Versus Transtibial Amputation: A Comparison of Functional Gait Outcomes	2016	J Orthop Trauma	Environmental factors for LS or Amp	univariate - very low quality
Russell, W. L.; Sailors, D. M.; Whittle, T. B.; Fisher Jr, D. F.; Burns, R. P.	Limb salvage versus traumatic amputation: A decision based on a seven-part predictive index	1991	Annals of Surgery	Immediate amputation factors	very low quality
Helfet, D. L.; Howey, T.; Sanders, R.; Johansen, K.	Limb salvage versus amputation. Preliminary results of the Mangled Extremity Severity Score	1990	Clin Orthop Relat Res	Immediate amputation factors	have workgroup review population; no controlled comparisons; prospective univariate; very low quality
Rosenberg, G. A.; Patterson, B. M.	Limb salvage versus amputation for severe open fractures of the tibia	1998	Orthopedics	Immediate amputation factors	book chapter; review
Dalman, R. L.; Harris, E. J., Jr.; Walker, M. T.; Perkash, I.	Limb salvage surgery in spinal cord injury patients	1998	Ann Vasc Surg		Follow-up available for only 7 patients;

Redett, R. J.; Robertson, B. C.; Chang, B.; Girotto, J.; Vaughan, T.	Limb salvage of lower-extremity wounds using free gracilis muscle reconstruction	2000	Plastic and Reconstructive Surgery	Patient/Injury factors for LS or Amp	No controlled comparison;
O'Sullivan, S. T.; Hehir, D. J.; O'Connor, M.; Brady, M. P.; O'Donnell, J. A.	Limb salvage in vascular trauma of the extremities--a regional experience	1994	Ir J Med Sci		Amp/Sal as outcome; retrospective univariate
Mullenix, P. S.; Steele, S. R.; Andersen, C. A.; Starnes, B. W.; Salim, A.; Martin, M. J.	Limb salvage and outcomes among patients with traumatic popliteal vascular injury: an analysis of the National Trauma Data Bank	2006	J Vasc Surg	Immediate amputation factors; Patient/Injury factors for LS or Amp	Amp/Salv as outcome
Vielgut, I.; Gregori, M.; Holzer, L. A.; Glehr, M.; Hashemi, S.; Platzer, P.	Limb salvage and functional outcomes among patients with traumatic popliteal artery injury: a review of 64 cases	2015	Wien Klin Wochenschr	Immediate amputation factors	amputation/salvage as outcome; prospective univariate; very low quality
Sugun, T. S.; Ozaksar, K.; Toros, T.; Kayalar, M.; Bal, E.; Ozerkan, F.	Limb salvage and amputation in Type 3C tibial fractures	2013	Acta Orthop Traumatol Turc	Immediate amputation factors	univariate - mean dif; not best available
Casey, K.; Sabino, J.; Weiss, J. S.; Kumar, A.; Valerio, I.	Limb salvage after vascular reconstruction followed by tissue transfer during the Global War on Terror	2015	J Vasc Surg	Patient/Injury factors for LS or Amp	*mixed-upper & lower extremity*
Guerrero, A.; Gibson, K.; Kralovich, K. A.; Pipinos, I.; Agnostopolous, P.; Carter, Y.; Bulger, E.; Meissner, M.; Karmy-Jones, R.	Limb loss following lower extremity arterial trauma: what can be done proactively?	2002	Injury	Patient/Injury factors for LS or Amp	not best available; very low quality;
Sie Essoh, J. B.; Kodo, M.; Dje Bi Dje, V.; Lambin, Y.	Limb amputations in adults in an Ivorian teaching hospital	2009	Niger J Clin Pract	Immediate amputation factors; Patient/Injury factors for LS or Amp	*Mixed population (lower and upper extremities)
Garcia, A. F.; Sanchez, A. I.; Millan, M.; Carbonell, J. P.; Ferrada, R.; Gutierrez, M. I.; Peitzman, A. B.; Puyana, J. C.	Limb amputation among patients with surgically treated popliteal arterial injury: analysis of 15 years of experience in an urban trauma center in Cali, Colombia	2012	Eur J Trauma Emerg Surg	Immediate amputation factors	not best available; very low quality

Ebskov, L. B.	Level of lower limb amputation in relation to etiology: an epidemiological study	1992	Prosthet Orthot Int	Patient/Injury factors for LS or Amp	Mixed etiology;
Krueger, C. A.; Rivera, J. C.; Tennent, D. J.; Sheean, A. J.; Stinner, D. J.; Wenke, J. C.	Late amputation may not reduce complications or improve mental health in combat-related, lower extremity limb salvage patients	2015	Injury	Patient/Injury factors for LS or Amp	case series; mixed entremity
Dziekiewicz, M.; Obara, A.; MaruszyÅ?ski, M.; Najdecki, M.; PaÅ?nik, K.; Przystasz, T.	Large vessel injuries - Own experience	2007	Acta Angiologica	Patient/Injury factors for LS or Amp	Case series; no controlled comparisons
Patterson, B. M.; Agel, J.; Swiontkowski, M. F.; Mackenzie, E. J.; Bosse, M. J.	Knee dislocations with vascular injury: outcomes in the Lower Extremity Assessment Project (LEAP) Study	2007	J Trauma	Patient/Injury factors for LS or Amp	no comparisons
Merrill, K. D.	Knee dislocations with vascular injuries	1994	Orthopedic Clinics of North America		review
Carr, J. B.; Werner, B. C.; Miller, M. D.; Gwathmey, F. W.	Knee Dislocation in the Morbidly Obese Patient	2016	J Knee Surg	Systematic Reviews	review
Gallusser, N.; Goetti, P.; Luyet, A.; Borens, O.	Knee arthrodesis with modular nail after failed TKA due to infection	2015	European Journal of Orthopaedic Surgery and Traumatology		12 subjects (with outcomes reported)
Garberina, M. J.; Fitch, R. D.; Hoffmann, E. D.; Hardaker, W. T.; Vail, T. P.; Scully, S. P.	Knee arthrodesis with circular external fixation	2001	Clin Orthop Relat Res	Patient/Injury factors for LS or Amp	Mixed etiology
De Vil, J.; Almqvist, K. F.; Vanheeren, P.; Boone, B.; Verdonk, R.	Knee arthrodesis with an intramedullary nail: a retrospective study	2008	Knee Surg Sports Traumatol Arthrosc		Doesn't address question of interest;
Lerner, A.; Fodor, L.; Soudry, M.	Is staged external fixation a valuable strategy for war injuries to the limbs?	2006	Clin Orthop Relat Res	Patient/Injury factors for LS or Amp	Mixed population

O'Sullivan, S. T.; O'Sullivan, M.; Pasha, N.; O'Shaughnessy, M.; O'Connor, T. P.	Is it possible to predict limb viability in complex Gustilo IIIB and IIIC tibial fractures? A comparison of two predictive indices	1997	Injury	Immediate amputation factors	very low quality
Barla, M.; Gavanier, B.; Mangin, M.; Parot, J.; Bauer, C.; Mainard, D.	Is amputation a viable treatment option in lower extremity trauma?	2017	Orthop Traumatol Surg Res	Immediate amputation factors; Patient/Injury factors for LS or Amp	retrospective, univariate - very lo quality
Kumar, A.; Mam, M. K.; Paul, R.	Ipsilateral fracture of femur and tibia, treatment and functional outcome	2006	JK Science		Doesn't address question of interest;
Opalic, P.; Lesic, A.	Investigation of psychopathological state of patients depending on specific clinical characteristics of physical trauma	2002	Panminerva Med	Immediate amputation factors; Patient/Injury factors for LS or Amp	*Mixed population (lower and upper extremities)
Warkentien, T.; Rodriguez, C.; Lloyd, B.; Wells, J.; Weintrob, A.; Dunne, J. R.; Ganesan, A.; Li, P.; Bradley, W.; Gaskins, L. J.; Seillier-Moiseiwitsch, F.; Murray, C. K.; Millar, E. V.; Keenan, B.; Paolino, K.; Fleming, M.; Hospenthal, D. R.; Wortmann, G. W.; Landrum, M. L.; Kortepeter, M. G.; Tribble, D. R.	Invasive mold infections following combat-related injuries	2012	Clin Infect Dis	Patient/Injury factors for LS or Amp	No controlled comparisons
Knaus, J.; Ris, H. B.; Do, D.; Stirnemann, P.	Intraoperative catheter thrombolysis as an adjunct to surgical revascularisation for infrainguinal limb-threatening ischaemia	1993	Eur J Vasc Surg	Patient/Injury factors for LS or Amp	Mixed etiology
Evans, J. M.; Gardner, M. J.; Brennan, M. L.; Phillips,	Intramedullary fixation of fibular fractures associated with pilon fractures	2010	J Orthop Trauma	Patient/Injury factors for LS or Amp	no comparisons

C. J.; Henley, M. B.; Dunbar, R. P.					
Helfet, D. L.; Koval, K.; Pappas, J.; Sanders, R. W.; DiPasquale, T.	Intraarticular "pilon" fracture of the tibia	1994	Clin Orthop Relat Res	Patient/Injury factors for LS or Amp	case series; no comparisons
Tscherne, H.; Regel, G.; Pape, H. C.; Pohlemann, T.; Krettek, C.	Internal fixation of multiple fractures in patients with polytrauma	1998	Clin Orthop Relat Res	Immediate amputation factors; Patient/Injury factors for LS or Amp	*Mixed population (lower and upper extremities)
Ostojic, L.; Ostojic, Z.; Rupcic, E.; Punda-Basic, M.	Intermediate rehabilitation outcome in below-knee amputations: descriptive study comparing war-related with other causes of amputation	2001	Croat Med J	Patient/Injury factors for LS or Amp	Doesn't address question of interest;
Iqbal, A.; Amin, M. S.	Intercalary bone segment transport in treatment of segmental tibial defects	2002	Journal of the College of Physicians and Surgeons Pakistan	Environmental factors for LS or Amp	No Controlled Comparison
KovaÄ쳌, I.; Medved, V.; KasoviÄ?, M.; Heimer, Å½; LuÅ¾ar-Stiffler, V.; PeÄ?ina, M.	Instrumented joint mobility analysis in traumatic transtibial amputee patients	2010	Periodicum Biologorum	Environmental factors for LS or Amp	no comparison group
Shin, E.; Evans, K. N.; Fleming, M. E.	Injury severity score underpredicts injury severity and resource utilization in combat-related amputations	2013	J Orthop Trauma	Patient/Injury factors for LS or Amp	prospective univariate; very low quality
Korver, A. J.	Injuries of the lower limbs caused by antipersonnel mines: the experience of the International Committee of the Red Cross	1996	Injury	Immediate amputation factors	no controlled comparisons
Coupland, R. M.; Korver, A.	Injuries from antipersonnel mines: the experience of the International Committee of the Red Cross	1991	Bmj	Immediate amputation factors	Mixed population

Soldo, S.; Puntaric, D.; Petrovicki, Z.; Prgomet, D.	Injuries caused by antipersonnel mines in Croatian Army soldiers on the East Slavonia front during the 1991-1992 war in Croatia	1999	Mil Med	Immediate amputation factors	Mixed population
Padberg, F. T., Jr.; Rubelowsky, J. J.; Hernandez-Maldonado, J. J.; Milazzo, V.; Swan, K. G.; Lee, B. C.; Hobson, R. W., 2nd	Infrapopliteal arterial injury: prompt revascularization affords optimal limb salvage	1992	J Vasc Surg	Patient/Injury factors for LS or Amp	prospective univariate; very low quality
Kamali, M.; Karimi, M. T.; Eshraghi, A.; Omar, H.	Influential factors in stability of lower-limb amputees	2013	Am J Phys Med Rehabil	Systematic Reviews	References Reviewed
Ladlow, P.; Phillip, R.; Coppack, R.; Etherington, J.; Bilzon, J.; McGuigan, M. P.; Bennett, A. N.	Influence of Immediate and Delayed Lower-Limb Amputation Compared with Lower-Limb Salvage on Functional and Mental Health Outcomes Post-Rehabilitation in the U.K. Military	2016	J Bone Joint Surg Am	Immediate amputation factors; Patient/Injury factors for LS or Amp	Prospective univariate; very low quality
Sharma, G. K.; Dhillon, M. S.; Dhatt, S. S.	The influence of foot and ankle injury patterns and treatment delays on outcomes in a tertiary hospital; a one-year prospective observation	2016	Foot (Edinb)	Patient/Injury factors for LS or Amp	no RF of interest
Johnson, E. N.; Burns, T. C.; Hayda, R. A.; Hospenthal, D. R.; Murray, C. K.	Infectious complications of open type III tibial fractures among combat casualties	2007	Clin Infect Dis	Patient/Injury factors for LS or Amp	No RF of interest;
Huh, J.; Stinner, D. J.; Burns, T. C.; Hsu, J. R.	Infectious complications and soft tissue injury contribute to late amputation after severe lower extremity trauma	2011	J Trauma	Patient/Injury factors for LS or Amp	no controlled comparison
Zalavras, C. G.; Christensen, T.; Rigopoulos, N.; Holtom, P.; Patzakis, M. J.	Infection following operative treatment of ankle fractures	2009	Clin Orthop Relat Res	Patient/Injury factors for LS or Amp	No comparisons

Yun, H. C.; Murray, C. K.; Nelson, K. J.; Bosse, M. J.	Infection After Orthopaedic Trauma: Prevention and Treatment	2016	J Orthop Trauma	Systematic Reviews	review
Jain, A. K.; Sinha, S.	Infected nonunion of the long bones	2005	Clin Orthop Relat Res	Immediate amputation factors; Patient/Injury factors for LS or Amp	Mixed population;
Halvachizadeh, S.; Pape, H. C.	Indications and Decision Making in Lower Extremity Amputations: Has Anything Changed in the Era of Microvascular Soft Tissue and Bone Regeneration Techniques?	2018	Current Trauma Reports	Immediate amputation factors; Patient/Injury factors for LS or Amp	Review
Ganie, F. A.; Lone, H.; Wani, M. L.; Wani, N. U.; Ahangar, A. G.; Ganie, S. A.	The increasing rate of secondary amputation in popliteal arterial injury associated with multi-organ injuries and hypotension	2012	Int Cardiovasc Res J	Immediate amputation factors	No Controlled Comparison
Paula-Ribeiro, M.; Garcia, M. M.; Martinez, D. G.; Lima, J. R.; Laterza, M. C.	Increased peripheral vascular resistance in male patients with traumatic lower limb amputation: one piece of the cardiovascular risk puzzle	2015	Blood Press Monit	Immediate amputation factors	Too few pts
Lin, S. H.; Lee, H. Y.; Chang, Y. Y.; Jang, Y.; Chen, P. C.; Wang, J. D.	Increased mortality risk for workers with a compensated, permanent occupational disability of the upper or lower extremities: a 21-year follow-up study	2010	Am J Epidemiol	Immediate amputation factors; Patient/Injury factors for LS or Amp	mixed etiology
Gillern, S. M.; Sheppard, F. R.; Evans, K. N.; Graybill, J. C.; Gage, F. A.; Forsberg, J. A.; Dunne, J. R.; Tadaki, D. K.; Elster, E. A.	Incidence of pulmonary embolus in combat casualties with extremity amputations and fractures	2011	J Trauma	Immediate amputation factors	Mixed population; mixed extremity
Cross, A. M.; Davis, C.; Penn-Barwell, J.; Taylor, D. M.; De Mello, W. F.; Matthews, J. J.	The incidence of pelvic fractures with traumatic lower limb amputation in modern warfare due to improvised explosive devices	2014	J R Nav Med Serv	Patient/Injury factors for LS or Amp	no controlled comparison

Chaloner, E. J.	The incidence of landmine injuries in Kuito, Angola	1996	J R Coll Surg Edinb	Patient/Injury factors for LS or Amp	No controlled comparison
Yu, J. C.; Lam, K.; Nettel-Aguirre, A.; Donald, M.; Dukelow, S.	Incidence and risk factors of falling in the postoperative lower limb amputee while on the surgical ward	2010	Pm r	Patient/Injury factors for LS or Amp	wrong population
Jupiter, D. C.; Shibuya, N.; Clawson, L. D.; Davis, M. L.	Incidence and risk factors for amputation in foot and ankle trauma	2012	J Foot Ankle Surg	Immediate amputation factors	Amp/Sal as outcome
Branco, B. C.; Inaba, K.; Barmparas, G.; Schnuriger, B.; Lustenberger, T.; Talving, P.; Lam, L.; Demetriades, D.	Incidence and predictors for the need for fasciotomy after extremity trauma: a 10-year review in a mature level I trauma centre	2011	Injury	Immediate amputation factors; Patient/Injury factors for LS or Amp	mixed extremity
Bevevino, A. J.; Lehman, R. A., Jr.; Tintle, S. M.; Kang, D. G.; Dworak, T. C.; Potter, B. K.	Incidence and morbidity of concomitant spine fractures in combat-related amputees	2014	Spine J	Patient/Injury factors for LS or Amp	prospective univariate; very low quality
Fosse, S.; Hartemann-Heurtier, A.; Jacqueminet, S.; Ha Van, G.; Grimaldi, A.; Fagot-Campagna, A.	Incidence and characteristics of lower limb amputations in people with diabetes	2009	Diabet Med	Immediate amputation factors	Mixed etiology
Glass, G. E.; Pearse, M. F.; Nanchahal, J.	Improving lower limb salvage following fractures with vascular injury: a systematic review and new management algorithm	2009	J Plast Reconstr Aesthet Surg	Systematic Reviews	References Reviewed
Miletta, N. R.; Kim, S.; Lezanski-Gujda, A.; Rossi, A. M.; Marquart, J. D.	Improving Health-Related Quality of Life in Wounded Warriors: The Promising Benefits of Laser Hair Removal to the Residual Limb-Prosthetic Interface	2016	Dermatol Surg	Environmental factors for LS or Amp	No relevant RFs; no comparison group
Kemp, A. G.; van Niekerk, J. L.; van Meurs, P. A.	Impairment scores of type III open tibial fractures	1993	Injury	Immediate amputation factors	Doesn't address question of interest;

Ashraf, A.; Shojaee, H.; Mousavi, B.; Masoumi, M.; Rezaei, N.; Azema, H.; Soroush, M.	Impact of pain in vertebral column on activities of daily living in the Iranian amputees with bilateral lower limb amputation	2012	Disabil Rehabil	Patient/Injury factors for LS or Amp	No controlled comparison
Dua, A.; Desai, S. S.; Johnston, S.; Chinapuvvula, N. R.; Wade, C. E.; Fox, C. J.; Holcomb, J. B.; Coogan, S.	The Impact of Geniculate Artery Collateral Circulation on Lower Limb Salvage Rates in Injured Patients	2016	Ann Vasc Surg	Patient/Injury factors for LS or Amp	no controlled comparison
Woo, S. H.; Kim, J. S.; Seul, J. H.	Immediate toe-to-hand transfer in acute hand injuries: overall results, compared with results for elective cases	2004	Plast Reconstr Surg		wrong population; doesn't address question of interest
Hawkins, B. J.; Langerman, R. J.; Anger, D. M.; Calhoun, J. H.	The Ilizarov technique in ankle fusion: A preliminary report	1993	Bulletin: Hospital for Joint Diseases	Immediate amputation factors	Case Series; Mixed Etiology
Hawkins, B. J.; Langerman, R. J.; Anger, D. M.; Calhoun, J. H.	The Ilizarov technique in ankle fusion	1994	Clin Orthop Relat Res	Immediate amputation factors	Case Series; Mixed Etiology
Woodman, G.; Croce, M. A.; Fabian, T. C.	Iliac artery ischemic: analysis of risks for ischemic complications	1998	Am Surg	Immediate amputation factors	No controlled comparison
Cestero, R. F.; Plurad, D.; Green, D.; Inaba, K.; Putty, B.; Benfield, R.; Lam, L.; Talving, P.; Demetriades, D.	Iliac artery injuries and pelvic fractures: a national trauma database analysis of associated injuries and outcomes	2009	J Trauma	Immediate amputation factors	wrong population; pelvic injury
Marchaland, J. P.; Ollat, D.; Mathieu, L.; Versier, G.	How to Cover Soft-Tissue Defects After Injuries to the Leg in Precarious Conditions	2009	Eur J Trauma Emerg Surg	Immediate amputation factors; Patient/Injury factors for LS or Amp	Case Series
Russell Esposito, E.; Blanck, R. V.; Harper, N. G.; Hsu, J. R.; Wilken, J. M.	How does ankle-foot orthosis stiffness affect gait in patients with lower limb salvage?	2014	Clin Orthop Relat Res	Environmental factors for LS or Amp	No Controlled Comparison
Wagels, M.; Rowe, D.; Senewiratne, S.; Theile, D. R.	History of lower limb reconstruction after trauma	2013	ANZ Journal of Surgery	Systematic Reviews	References Reviewed

Bible, J. E.; Sivasubramaniam, P. G.; Jahangir, A. A.; Evans, J. M.; Mir, H. R.	High-energy transsyndesmotic ankle fracture dislocation - The "logsplitter" injury	2014	Journal of Orthopaedic Trauma	Patient/Injury factors for LS or Amp	No comparisons
French, B.; Tornetta, Iii P.	High-energy tibial shaft fractures	2002	Orthopedic Clinics of North America	Patient/Injury factors for LS or Amp	Review
Tejwani, N. C.; Hak, D. J.; Finkemeier, C. G.; Wolinsky, P. R.	High-energy proximal tibial fractures: treatment options and decision making	2006	Instr Course Lect	Patient/Injury factors for LS or Amp	Review
Wascher, D. C.	High-energy knee dislocations	2003	Operative Techniques in Sports Medicine	Patient/Injury factors for LS or Amp	Review
Tarkin, I. S.; Sop, A.; Pape, H. C.	High-energy foot and ankle trauma: principles for formulating an individualized care plan	2008	Foot Ankle Clin	Systematic Reviews	review
Anderson, L. A.; Culp, B. M.; Della Valle, C. J.; Gililland, J. M.; Meneghini, R. M.; Browne, J. A.; Springer, B. D.	High Failure Rates of Concomitant Periprosthetic Joint Infection and Extensor Mechanism Disruption	2018	Journal of Arthroplasty	Patient/Injury factors for LS or Amp	No high-energy;
Dickson, K. F.; Montgomery, S.; Field, J.	High energy plafond fractures treated by a spanning external fixator initially and followed by a second stage open reduction internal fixation of the articular surface--preliminary report	2001	Injury	Patient/Injury factors for LS or Amp	No comparisons
Napora, J. K.; Weinberg, D. S.; Eagle, B. A.; Kaufman, B. R.; Sontich, J. K.	Hexapod Stacked Transport for Tibial Infected Nonunions With Bone Loss: Long-Term Functional Outcomes	2018	J Orthop Trauma	Patient/Injury factors for LS or Amp	univariate - mean dif; not best available
Napora, J. K.; Weinberg, D. S.; Eagle, B. A.; Kaufman, B. R.; Sontich, J. K.	Hexapod Frame Stacked Transport for Tibial Infected Nonunions With Bone Loss: Analysis of Use of Adjunctive Stability	2017	J Orthop Trauma	Patient/Injury factors for LS or Amp	retrospective, univariate - very low quality

Talbot, L. A.; Brede, E.; Price, M.; Metter, E. J.	Health-related quality of life in active duty military: A secondary data analysis of two randomized controlled trials	2017	Nurs Outlook	Patient/Injury factors for LS or Amp	No RF of interest
MacKenzie, E. J.; Jones, A. S.; Bosse, M. J.; Castillo, R. C.; Pollak, A. N.; Webb, L. X.; Swiontkowski, M. F.; Kellam, J. F.; Smith, D. G.; Sanders, R. W.; Jones, A. L.; Starr, A. J.; McAndrew, M. P.; Patterson, B. M.; Burgess, A. R.	Health-care costs associated with amputation or reconstruction of a limb-threatening injury	2007	J Bone Joint Surg Am	Cost Analysis	
Thakore, R. V.; Francois, E. L.; Nwosu, S. K.; Attum, B.; Whiting, P. S.; Siuta, M. A.; Benvenuti, M. A.; Smith, A. K.; Shen, M. S.; Mousavi, I.; Obremskey, W. T.; Sethi, M. K.	The Gustilo-Anderson classification system as predictor of nonunion and infection in open tibia fractures	2017	Eur J Trauma Emerg Surg	Immediate amputation factors	unclear population; unclear if all high energy
Tunali, O.; Saglam, Y.; Balci, H. I.; Kochai, A.; Sahbaz, N. A.; Sayin, O. A.; Yazicioglu, O.	Gustilo type IIIC open tibia fractures with vascular repair: minimum 2-year follow-up	2017	Eur J Trauma Emerg Surg	Immediate amputation factors; Patient/Injury factors for LS or Amp	No controlled comparison
Grossman, M. D.; Reilly, P.; McMahan, D.; Kauder, D.; Schwab, C. W.	Gunshot wounds below the popliteal fossa: a contemporary review	1999	Am Surg	Patient/Injury factors for LS or Amp	case series; no comparisons; no controlled comparisons
Hoogendoorn, J. M.; van der Werken, C.	Grade III open tibial fractures: functional outcome and quality of life in amputees versus patients with successful reconstruction	2001	Injury	Patient/Injury factors for LS or Amp	prospective univariate; very low quality
Balci, H. I.; Saglam, Y.; Tunali, O.; Akgul, T.; Aksoy, M.; Dikici, F.	Grade 3C open femur fractures with vascular repair in adults	2015	Acta Orthop Belg	Immediate amputation factors; Patient/Injury factors for LS or Amp	No controlled comparison

Rajasekaran, S.; Sabapathy, S. R.; Dheenadhayalan, J.; Sundararajan, S. R.; Venkatramani, H.; Devendra, A.; Ramesh, P.; Srikanth, K. P.	Ganga hospital open injury score in management of open injuries	2015	Eur J Trauma Emerg Surg	Patient/Injury factors for LS or Amp	Commentary
Archer, K. R.; Castillo, R. C.; Mackenzie, E. J.; Bosse, M. J.	Gait symmetry and walking speed analysis following lower-extremity trauma	2006	Phys Ther	Patient/Injury factors for LS or Amp; Environmental factors for LS or Amp	Amputation/Salvage as Outcome
Russell Esposito, E.; Stinner, D. J.; Fergason, J. R.; Wilken, J. M.	Gait biomechanics following lower extremity trauma: Amputation vs. reconstruction	2017	Gait Posture	Environmental factors for LS or Amp	univariate - mean dif; not best available
Mahon, C. E.; Pruziner, A. L.; Hendershot, B. D.; Wolf, E. J.; Darter, B. J.; Foreman, K. B.; Webster, J. B.	Gait and Functional Outcomes for Young, Active Males With Traumatic Unilateral Transfemoral Limb Loss	2017	Mil Med	Patient/Injury factors for LS or Amp	No controlled comparison
Bonanni, F.; Rhodes, M.; Lucke, J. F.	The futility of predictive scoring of mangled lower extremities	1993	J Trauma	Patient/Injury factors for LS or Amp	no controlled comparison; retrospective data; very low quality;
Parmaksizoglu, F.; Unal, M. B.; Cansu, E.; Koprulu, A. S.; Ince, Y.; Yurga, E.	Functional results of limb salvage in below-knee type III C open fractures or traumatic amputations	2012	J Reconstr Microsurg	Immediate amputation factors	case series
Barker, K. L.; Lamb, S. E.; Simpson, A. H.	Functional recovery in patients with nonunion treated with the Ilizarov technique	2004	J Bone Joint Surg Br	Patient/Injury factors for LS or Amp	No comparison group
Rodriguez, E. D.; Bluebond-Langner, R.; Copeland, C.; Grim, T. N.; Singh, N. K.; Scalea, T.	Functional outcomes of posttraumatic lower limb salvage: a pilot study of anterolateral thigh perforator flaps versus muscle flaps	2009	J Trauma	Patient/Injury factors for LS or Amp	No RF of interest;
Gopal, S.; Giannoudis, P. V.; Murray, A.; Matthews, S. J.; Smith, R. M.	The functional outcome of severe, open tibial fractures	2004	J Bone Joint Surg Br	Patient/Injury factors for LS or Amp	prospective univariate; very low quality

	managed with early fixation and flap coverage				
Lin, C. H.; Wei, F. C.; Levin, L. S.; Su, J. I.; Yeh, W. L.	The functional outcome of lower-extremity fractures with vascular injury	1997	J Trauma	Immediate amputation factors; Patient/Injury factors for LS or Amp	not best available; very low quality
Smith, J. J.; Agel, J.; Swiontkowski, M. F.; Castillo, R.; Mackenzie, E.; Kellam, J. F.	Functional outcome of bilateral limb threatening: lower extremity injuries at two years postinjury	2005	J Orthop Trauma	Patient/Injury factors for LS or Amp	No controlled comparison
Dahl, B.; Andersson, A. P.; Andersen, M.; Andersen, G. R.; Ebskov, L. B.; Reumert, T.	Functional and social long-term results after free tissue transfer to the lower extremity	1995	Ann Plast Surg	Patient/Injury factors for LS or Amp	Mixed etiology; no controlled comparison
van der Merwe, L.; Birkholtz, F.; Tetsworth, K.; Hohmann, E.	Functional and psychological outcomes of delayed lower limb amputation following failed lower limb reconstruction	2016	Injury	Patient/Injury factors for LS or Amp; Environmental factors for LS or Amp	No Controlled Comparison
Fairhurst, M. J.	The function of below-knee amputee versus the patient with salvaged grade III tibial fracture	1994	Clin Orthop Relat Res	Environmental factors for LS or Amp	No Controlled Comparison
Ikram, M.; Iqbal, A.; Ayaz, S. B.; Gill, Z. A.; Matee, S.	Frequency and socio-demographic predictors of clinical depression in combat amputees at a military rehabilitation setup	2014	Rawal Medical Journal	Patient/Injury factors for LS or Amp	mixed etiology
Lundy, J. B.; Oh, J. S.; Chung, K. K.; Ritter, J. L.; Gibb, I.; Nordmann, G. R.; Sonka, B. J.; Tai, N. R.; Aden, J. K.; Rasmussen, T. E.	Frequency and relevance of acute peritraumatic pulmonary thrombus diagnosed by computed tomographic imaging in combat casualties	2013	J Trauma Acute Care Surg	Patient/Injury factors for LS or Amp	mixed extremity
Ahmad, S.; Siddique, O. M.; Ikram, N.; Hamid, K.	Frequency and presentation of wheel spoke injury of heel at plastic surgery department of allama iqbal memorial teaching hospital, sialkot	2017	Medical Forum Monthly	Patient/Injury factors for LS or Amp	Incorrect pts population; no controlled comparison

Hammert, W. C.; Minarchek, J.; Trzeciak, M. A.	Free-flap reconstruction of traumatic lower extremity wounds	2000	Am J Orthop (Belle Mead NJ)	Environmental factors for LS or Amp	No controlled comparison; No relevant RFs
Wink, J. D.; Nelson, J. A.; Fischer, J. P.; Cleveland, E. C.; Kovach, S. J., 3rd	Free tissue transfer for complex reconstruction of the lower extremity: experience of a young microsurgeon	2014	J Reconstr Microsurg	Immediate amputation factors	mixed etiology
Baumann, D. P.; Chang, D. W.	Free Flap Reconstruction for Complex Lower Extremity Wounds	2009	Techniques in Orthopaedics	Patient/Injury factors for LS or Amp	Review
Cleveland, E. C.; Fischer, J. P.; Nelson, J. A.; Wink, J. D.; Levin, L. S.; Kovach, S. J.	Free flap lower extremity reconstruction in the obese population: Does weight matter?	2014	Journal of Reconstructive Microsurgery	Patient/Injury factors for LS or Amp	Mixed etiology; no controlled comparison
Wei, F. C.; El-Gammal, T. A.; Lin, C. H.; Ueng, W. N.	Free fibula osteoseptocutaneous graft for reconstruction of segmental femoral shaft defects	1997	Journal of Trauma - Injury, Infection and Critical Care	Patient/Injury factors for LS or Amp	No relevant RFs; No comparison group
Houdek, M. T.; Wagner, E. R.; Watts, C. D.; Sems, S. A.; Moran, S. L.	Free Composite Serratus Anterior-Latissimus-Rib Flaps for Acute One-Stage Reconstruction of Gustilo IIIB Tibia Fractures	2018	Am J Orthop (Belle Mead NJ)	Patient/Injury factors for LS or Amp	Too few pts
Aho, J. M.; Sen, M. K.; Saint-Cyr, M.	Free and pedicle flaps in lower extremity trauma	2015	European Journal of Plastic Surgery	Systematic Reviews	review
Paul, G. R.; Sawka, M. W.; Whitelaw, G. P.	Fractures of the ipsilateral femur and tibia: emphasis on intra-articular and soft tissue injury	1990	J Orthop Trauma	Patient/Injury factors for LS or Amp	case series; no comparisons of interest
Richter, M.; Wippermann, B.; Krettek, C.; Schratt, H. E.; Hufner, T.; Therman, H.	Fractures and fracture dislocations of the midfoot: occurrence, causes and long-term results	2001	Foot Ankle Int	Patient/Injury factors for LS or Amp	mixed etiology; no relevant RFs
Brinker, M. R.; Bailey, D. E., Jr.	Fracture healing in tibia fractures with an associated vascular injury	1997	J Trauma	Patient/Injury factors for LS or Amp	not best available; very low quality

Andersen, R. C.; Pressman, D. N.; Keeling, J. J.; Gordon, W.	Fracture care about the knee in high-energy war injuries	2010	Techniques in Knee Surgery	Systematic Reviews	review; case review;
Parrett, B. M.; Pomahac, B.; Demling, R. H.; Orgill, D. P.	Fourth-degree burns to the lower extremity with exposed tendon and bone: a ten-year experience	2006	J Burn Care Res	Patient/Injury factors for LS or Amp	No high-energy trauma
Thiagarajan, P.; Neeta, S.; Das De, S.	Forklift related injuries	1998	Journal of Orthopaedic Surgery	Patient/Injury factors for LS or Amp	No relevant RFs
McGuigan, F. X.; Forsberg, J. A.; Andersen, R. C.	Foot and ankle reconstruction after blast injuries	2006	Foot Ankle Clin	Systematic Reviews	review
Lundy, D. W.; Johnson, K. D.	"Floating knee" injuries: ipsilateral fractures of the femur and tibia	2001	J Am Acad Orthop Surg	Systematic Reviews	review
DiChristina, D. G.; Riemer, B. L.; Butterfield, S. L.; Burke, C. J., 3rd; Herron, M. K.; Phillips, D. J.	Femur fractures with femoral or popliteal artery injuries in blunt trauma	1994	J Orthop Trauma	Patient/Injury factors for LS or Amp	No comparison group
UÇ§ur, O.; KarakaÅ?, A. O.	Femoral artery injuries due to gunshot injury in Somalia civilwar continues	2017	Turkiye Klinikleri Cardiovascular Sciences	Immediate amputation factors	Case Series
Bartle, D.; Keating, J.	Femoral and tibial fractures	2013	Surgery (United Kingdom)	Systematic Reviews	review
Pinzur, M. S.; Angelico, J.	A feasibility trial of a prefabricated immediate postoperative prosthetic limb system	2003	Foot Ankle Int	Immediate amputation factors	mixed etiology
Culliford, A. T. th; Spector, J.; Blank, A.; Karp, N. S.; Kasabian, A.; Levine, J. P.	The fate of lower extremities with failed free flaps: a single institution's experience over 25 years	2007	Ann Plast Surg	Patient/Injury factors for LS or Amp	Mixed etiology
Beltran, M. J.; Burns, T. C.; Eckel, T. T.; Potter, B. K.; Wenke, J. C.; Hsu, J. R.	Fate of combat nerve injury	2012	J Orthop Trauma	Patient/Injury factors for LS or Amp	no relevant outcome data

Ramasamy, M. A.; Hill, A. M.; Phillip, R.; Gibb, I.; Bull, A. M.; Clasper, J. C.	FASS is a better predictor of poor outcome in lower limb blast injury than AIS: implications for blast research	2013	J Orthop Trauma	Patient/Injury factors for LS or Amp	No controlled comparisons ; very low quality
MacKenzie, E. J.; Bosse, M. J.; Kellam, J. F.; Burgess, A. R.; Webb, L. X.; Swiontkowski, M. F.; Sanders, R.; Jones, A. L.; McAndrew, M. P.; Patterson, B.; McCarthy, M. L.; Rohde, C. A.	Factors influencing the decision to amputate or reconstruct after high-energy lower extremity trauma	2002	J Trauma	Immediate amputation factors; Patient/Injury factors for LS or Amp; Environmental factors for LS or Amp	Amputation/Salvage as Outcome
MacKenzie, E. J.; Bosse, M. J.	Factors influencing outcome following limb-threatening lower limb trauma: lessons learned from the Lower Extremity Assessment Project (LEAP)	2006	J Am Acad Orthop Surg	Systematic Reviews	review
Penn-Barwell, J. G.; Bennett, P. M.; Mortiboy, D. E.; Fries, C. A.; Groom, A. F.; Sargeant, I. D.	Factors influencing infection in 10 years of battlefield open tibia fractures	2016	Strategies Trauma Limb Reconstr	Patient/Injury factors for LS or Amp	prospective univariate; very low quality
van der Vliet, Q. M. J.; Hietbrink, F.; Casari, F.; Leenen, L. P. H.; Heng, M.	Factors Influencing Functional Outcomes of Subtalar Fusion for Posttraumatic Arthritis After Calcaneal Fracture	2018	Foot Ankle Int	Patient/Injury factors for LS or Amp	Mixed etiology
Manley, N. R.; Magnotti, L. J.; Fabian, T. C.; Cutshall, M. B.; Croce, M. A.; Sharpe, J. P.	Factors Contributing to Morbidity after Combined Arterial and Venous Lower Extremity Trauma	2018	Am Surg	Immediate amputation factors	No RF of interest
Kurichi, J. E.; Ripley, D. C.; Xie, D.; Kwong, P. L.; Bates, B. E.; Stineman, M. G.	Factors Associated With Home Discharge After Rehabilitation Among Male Veterans With Lower Extremity Amputation	2013	PM and R	Environmental factors for LS or Amp	mixed etiology
Perkins, Z. B.; De'Ath, H. D.; Sharp, G.; Tai, N. R.	Factors affecting outcome after traumatic limb amputation	2012	Br J Surg	Systematic Reviews	References Reviewed

Guraya, S. Y.	Extremity vascular trauma in Pakistan	2004	Saudi Med J	Patient/Injury factors for LS or Amp	No controlled comparisons
Menakuru, S. R.; Behera, A.; Jindal, R.; Kaman, L.; Doley, R.; Venkatesan, R.	Extremity vascular trauma in civilian population: a seven-year review from North India	2005	Injury	Immediate amputation factors; Patient/Injury factors for LS or Amp	mixed extremity
Wiss, D. A.; Sherman, R.; Oechsel, M.	External skeletal fixation and rectus abdominis free-tissue transfer in the management of severe open fractures of the tibia	1993	Orthop Clin North Am		case series
Bedes, L.; Bonnevialle, P.; Ehlinger, M.; Bertin, R.; Vandenbusch, E.; Pietu, G.	External fixation of distal femoral fractures in adults' multicentre retrospective study of 43 patients	2014	Orthop Traumatol Surg Res	Patient/Injury factors for LS or Amp	no RF of interest
Livingston, D. H.; Keenan, D.; Kim, D.; Elcavage, J.; Malangoni, M. A.	Extent of disability following traumatic extremity amputation	1994	J Trauma		Mixed extremity
Hashmi, P. M.	An experience with free scapular flap for reconstruction of lower extremity defects at Aga Khan University Hospital Karachi	2004	J Ayub Med Coll Abbottabad	Patient/Injury factors for LS or Amp	No controlled comparison
Clover, A. J.; Rannan-Eliya, S.; Saeed, W.; Buxton, R.; Majumder, S.; Hettiaratchy, S. P.; Jemec, B.	Experience of an orthoplastic limb salvage team after the Haiti earthquake: analysis of caseload and early outcomes	2011	Plast Reconstr Surg	Patient/Injury factors for LS or Amp	No controlled comparison
Hallock, G. G.	Evidence-based medicine: lower extremity acute trauma	2013	Plast Reconstr Surg	Systematic Reviews	review
Sheean, A. J.; Krueger, C. A.; Napierala, M. A.; Stinner, D. J.; Hsu, J. R.	Evaluation of the mangled extremity severity score in combat-related type III open tibia fracture	2014	J Orthop Trauma	Immediate amputation factors	SENS/SPEC data; Retro/Uni; very low quality

Ozturk, S.; Bayram, Y.; Mohur, H.; Deveci, M.; Sengezer, M.	Evaluation of late functional results of patients treated with free muscle flaps for heel defects caused by land-mine explosions	2005	Plast Reconstr Surg	Patient/Injury factors for LS or Amp; Environmental factors for LS or Amp	No relevant RFs; no comparison group
Tanga, C.; Franz, R.; Hill, J.; Lieber, M.; Galante, J.	Evaluation of Experience with Lower Extremity Arterial Injuries at an Urban Trauma Center	2018	Int J Angiol	Patient/Injury factors for LS or Amp	Mixed etiology
Ebrahimzadeh, M. H.; Moradi, A.; Bozorgnia, S.; Hallaj-Moghaddam, M.	Evaluation of disabilities and activities of daily living of war-related bilateral lower extremity amputees	2016	Prosthet Orthot Int	Immediate amputation factors; Patient/Injury factors for LS or Amp	No comparison of interest
Guner, S. I.; Oncu, M. R.	Evaluation of crush syndrome patients with extremity injuries in the 2011 Van Earthquake in Turkey	2014	J Clin Nurs	Immediate amputation factors	No controlled comparison
Lawrence, S. J.; Grau, G. F.	Evaluation and treatment of open calcaneal fractures: a retrospective analysis	2003	Orthopedics	Immediate amputation factors	case series
Ziegler-Graham, K.; MacKenzie, E. J.; Ephraim, P. L.; Travison, T. G.; Brookmeyer, R.	Estimating the prevalence of limb loss in the United States: 2005 to 2050	2008	Arch Phys Med Rehabil		Doesn't address question of interest;
Barmparas, G.; Inaba, K.; Teixeira, P. G.; Dubose, J. J.; Criscuoli, M.; Talving, P.; Plurad, D.; Green, D.; Demetriades, D.	Epidemiology of post-traumatic limb amputation: a National Trauma Databank analysis	2010	Am Surg	Immediate amputation factors	mixed extremity; upper and lower limbs
Gopinathan, N. R.; Santhanam, S. S.; Saibaba, B.; Dhillon, M. S.	Epidemiology of lower limb musculoskeletal trauma with associated vascular injuries in a tertiary care institute in India	2017	Indian J Orthop	Immediate amputation factors	very low quality
Bachier, M.; Feliz, A.	Epidemiology of lawnmower-related injuries in children: A 10-year review	2016	American Journal of Surgery	Patient/Injury factors for LS or Amp	*mixed-upper & lower extremity*

Ghazisaidi, M. R.; Mozafari, N.; Yavari, M.; Hosseini, S. N.	End-to-side anastomosis for limb salvage in the single artery of a traumatized extremity	2010	Ulus Travma Acil Cerrahi Derg	Patient/Injury factors for LS or Amp	No relevant RFs
Crawford, B.; Watson, J. T.; Jackman, J.; Fissel, B.; Karges, D. E.	End-stage hindfoot arthrosis: outcomes of tibiocalcaneal fusion using internal and Ilizarov fixation	2014	J Foot Ankle Surg	Patient/Injury factors for LS or Amp	Mixed etiology
Biagioni, R. B.; Burihan, M. C.; Nasser, F.; Biagioni, L. C.; Ingrund, J. C.	Endovascular treatment of penetrating arterial trauma with stent grafts	2018	Vasa	Patient/Injury factors for LS or Amp	Mixed population; mixed etiology
Piffaretti, G.; Tozzi, M.; Lomazzi, C.; Rivolta, N.; Caronno, R.; Lagana, D.; Carrafiello, G.; Castelli, P.	Endovascular treatment for traumatic injuries of the peripheral arteries following blunt trauma	2007	Injury	Patient/Injury factors for LS or Amp	Mixed population
Yang, R. S.	Endoprosthesis-related complications after limb-salvage operation of malignant bone tumors around the knee	2004	Biomedical Engineering - Applications, Basis and Communications	Systematic Reviews	review
Talbot, L. A.; Brede, E.; Metter, E. J.	Effects of Adding Neuromuscular Electrical Stimulation to Traditional Military Amputee Rehabilitation	2017	Mil Med	Environmental factors for LS or Amp	Doesn't answer question of interest
Rauh, M. J.; Aralis, H. J.; Melcer, T.; Macera, C. A.; Sessoms, P.; Bartlett, J.; Galarneau, M. R.	Effect of traumatic brain injury among U.S. servicemembers with amputation	2013	J Rehabil Res Dev	Patient/Injury factors for LS or Amp; Environmental factors for LS or Amp	mixed extremity
Yeh, H. K.; Fang, F.; Lin, Y. T.; Lin, C. H.; Lin, C. H.; Hsu, C. C.	The effect of systemic injury score on the decision making of mangled lower extremities	2016	Injury	Immediate amputation factors	Amp/Sal as outcome; retrospective univariate
Chua, W.; De, S. D.; Lin, W. K.; Kagda, F.; Murphy, D.	Early versus late flap coverage for open tibial fractures	2014	J Orthop Surg (Hong Kong)	Patient/Injury factors for LS or Amp	No relevant RFs
Williams, Z. F.; Bools, L. M.; Adams, A.; Clancy, T. V.; Hope, W. W.	Early versus delayed amputation in the setting of severe lower extremity trauma	2015	Am Surg	Immediate amputation factors	No controlled comparison

Ebrahimi, A.; Nejadsarvari, N.; Ebrahimi, A.; Rasouli, H. R.	Early Reconstructions of Complex Lower Extremity Battlefield Soft Tissue Wounds	2017	World J Plast Surg	Patient/Injury factors for LS or Amp	No controlled comparisons; Case-series
Christy, M. R.; Lipschitz, A.; Rodriguez, E.; Chopra, K.; Yuan, N.	Early postoperative outcomes associated with the anterolateral thigh flap in Gustilo IIIB fractures of the lower extremity	2014	Ann Plast Surg	Immediate amputation factors; Patient/Injury factors for LS or Amp	No controlled comparison
Parmaksizoglu, F.; Koprulu, A. S.; Unal, M. B.; Cansu, E.	Early or delayed limb lengthening after acute shortening in the treatment of traumatic below-knee amputations and Gustilo and Anderson type IIIC open tibial fractures: The results of a case series	2010	J Bone Joint Surg Br	Environmental factors for LS or Amp	No Controlled Comparison
Conroy, J.; Agarwal, M.; Giannoudis, P. V.; Matthews, S. J.	Early internal fixation and soft tissue cover of severe open tibial pilon fractures	2003	Int Orthop		No usable data; statistical comparisons not of interest
Farber, A.; Tan, T. W.; Hamburg, N. M.; Kalish, J. A.; Joglar, F.; Onigman, T.; Rybin, D.; Doros, G.; Eberhardt, R. T.	Early fasciotomy in patients with extremity vascular injury is associated with decreased risk of adverse limb outcomes: a review of the National Trauma Data Bank	2012	Injury	Patient/Injury factors for LS or Amp	Amputation/Salvage as Outcome
Xu, Y. Q.; Li, Q.; Shen, T. G.; Su, P. H.; Zhu, Y. Z.	Early diagnosis and treatment of trauma in knee joints accompanied with popliteal vascular injury	2015	Int J Clin Exp Med	Cost Analysis	
Esposito, E. R.; Rodriguez, K. M.; Rabago, C. A.; Wilken, J. M.	Does unilateral transtibial amputation lead to greater metabolic demand during walking?	2014	J Rehabil Res Dev	Patient/Injury factors for LS or Amp	no RF of interest
Burns, T. C.; Stinner, D. J.; Possley, D. R.; Mack, A. W.; Eckel, T. T.; Potter, B. K.; Wenke, J. C.; Hsu, J. R.	Does the zone of injury in combat-related Type III open tibia fractures preclude the use of local soft tissue coverage?	2010	J Orthop Trauma	Patient/Injury factors for LS or Amp	No RF of interest

Pruziner, A. L.; Werner, K. M.; Copple, T. J.; Hendershot, B. D.; Wolf, E. J.	Does intact limb loading differ in servicemembers with traumatic lower limb loss?	2014	Clin Orthop Relat Res	Environmental factors for LS or Amp	No Controlled Comparison
Guirao, L.; Samitier, B.; Tibau, R.; Alos, J.; Monago, M.; Morales-Suarez-Varela, M.; Pleguezuelos, E.	Distance and speed of walking in individuals with trans-femoral amputation fitted with a distal weight-bearing implant	2018	Orthop Traumatol Surg Res	Environmental factors for LS or Amp	Mixed Etiology
Lietman, S. A.; Inoue, N.; Chao, E. Y.; Frassica, F. J.	Distal femoral osteoarticular allografts in limb salvage surgery	1999	Ann Chir Gynaecol		wrong population; tumors
Andersen, R. C.; Fleming, M.; Forsberg, J. A.; Gordon, W. T.; Nanos, G. P.; Charlton, M. T.; Ficke, J. R.	Dismounted Complex Blast Injury	2012	J Surg Orthop Adv		review
Couto, R. A.; Gurunluoglu, R.	Discussion: An Argument for Salvage in Severe Lower Extremity Trauma with Posterior Tibial Nerve Injury: The Ganga Hospital Experience	2015	Plastic and reconstructive surgery	Systematic Reviews	Systematic review
Highsmith, M. J.; Kahle, J. T.; Miro, R. M.; Lura, D. J.; Carey, S. L.; Wernke, M. M.; Kim, S. H.; Quillen, W. S.	Differences in Military Obstacle Course Performance Between Three Energy-Storing and Shock-Adapting Prosthetic Feet in High-Functioning Transtibial Amputees: A Double-Blind, Randomized Control Trial	2016	Mil Med	Environmental factors for LS or Amp	Mixed Etiology
Modrall, J. G.; Weaver, F. A.; Yellin, A. E.	Diagnosis and management of penetrating vascular trauma and the injured extremity	1998	Emerg Med Clin North Am	Systematic Reviews	review
Keyser, J. E.	Diabetic wound healing and limb salvage in an outpatient wound care program	1993	South Med J	Patient/Injury factors for LS or Amp	Unclear trauma;

Maclean, A. A.; O'Neill, A. M.; Pachter, H. L.; Miglietta, M. A.	Devastating consequences of subway accidents: traumatic amputations	2006	Am Surg		case series; no comparisons of interest
Katzman, S. S.; Dickson, K.	Determining the prognosis for limb salvage in major vascular injuries with associated open tibial fractures	1992	Orthop Rev	Immediate amputation factors	<20 patients; 19 subjects
Ramanan, B.; Ahmed, A.; Wu, B.; Causey, M. W.; Gasper, W. J.; Vartanian, S. M.; Reyzelman, A. M.; Hiramoto, J. S.; Conte, M. S.	Determinants of midterm functional outcomes, wound healing, and resources used in a hospital-based limb preservation program	2017	J Vasc Surg	Immediate amputation factors; Patient/Injury factors for LS or Amp	Non-trauma patients
Rotter, K.; Sanhueza, R.; Robles, K.; Godoy, M.	A descriptive study of traumatic lower limb amputees from the Hospital Hel Trabajador: clinical evolution from the accident until rehabilitation discharge	2006	Prosthet Orthot Int		case series; no comparisons of interest
Hill, O.; Bulathsinhala, L.; Eskridge, S. L.; Quinn, K.; Stinner, D. J.	Descriptive Characteristics and Amputation Rates With Use of Intrepid Dynamic Exoskeleton Orthosis	2016	Mil Med	Environmental factors for LS or Amp	No Controlled Comparison
Patzkowski, J. C.; Owens, J. G.; Blanck, R. V.; Kirk, K. L.; Hsu, J. R.	Deployment after limb salvage for high-energy lower-extremity trauma	2012	J Trauma Acute Care Surg	Environmental factors for LS or Amp	No Controlled Comparison
Sohn, V. Y.; Arthurs, Z. M.; Herbert, G. S.; Beekley, A. C.; Sebesta, J. A.	Demographics, treatment, and early outcomes in penetrating vascular combat trauma	2008	Arch Surg	Patient/Injury factors for LS or Amp	*mixed-upper & lower extremity*
Rathore, F. A.; Ayaz, S. B.; Mansoor, S. N.; Qureshi, A. R.; Fahim, M.	Demographics of Lower Limb Amputations in the Pakistan Military: A Single Center, Three-Year Prospective Survey	2016	Cureus	Patient/Injury factors for LS or Amp	No comparison group; No relevant RFs
Cannada, L. K.; Jones, A. L.	Demographic, social and economic variables that affect lower extremity injury outcomes	2006	Injury	Patient/Injury factors for LS or Amp; Environmental factors for LS or Amp	No comparison group

Thiagarajan, P.	Delayed amputation in lower limb trauma: an analysis of factors leading to delayed amputation	1999	Ann Acad Med Singapore	Immediate amputation factors	Mixed etiology; no controlled comparison
Yokoyama, K.; Itoman, M.; Shindo, M.; Kai, H.; Ueta, S.; Kobayashi, A.	Deep infection and fracture healing in immediate and delayed locked intramedullary nailing for open femoral fractures	1999	Orthopedics	Patient/Injury factors for LS or Amp	Population n<10; no relevant RFs
Grigorian, A.; Wilson, S. E.; Kabutey, N. K.; Fujitani, R. M.; de Virgilio, C.; Schubl, S. D.; Gabriel, V.; Chen, S.; Joe, V.; Nahmias, J.	Decreased National Rate of below the Knee Amputation in Patients with Popliteal Artery Injury	2018	Ann Vasc Surg	Patient/Injury factors for LS or Amp	Amputation/Salvage as Outcome
Krajewski, A.; Chandawarkar, R. Y.	Decision making in limb salvage: A challenge for the orthoplastic team	2012	Techniques in Orthopaedics	Patient/Injury factors for LS or Amp	Commentary; no usable data
Hierner, R.; Betz, A. M.; Comtet, J. J.; Berger, A. C.	Decision making and results in subtotal and total lower leg amputations: reconstruction versus amputation	1995	Microsurgery	Immediate amputation factors	Case Series
Subramanian, A.; Vercruysse, G.; Dente, C.; Wyrzykowski, A.; King, E.; Feliciano, D. V.	A decade's experience with temporary intravascular shunts at a civilian level I trauma center	2008	J Trauma	Patient/Injury factors for LS or Amp	No Controlled Comparison; Mixed population
Ramdass, M. J.; Harnarayan, P.	A decade of major vascular trauma: Lessons learned from gang and civilian warfare	2017	Ann R Coll Surg Engl	Immediate amputation factors	Mixed Etiology
Jaha, L.; Andreevska, T.; Rudari, H.; Ademi, B.; Ismaili-Jaha, V.	A decade of civilian vascular trauma in Kosovo	2012	World J Emerg Surg	Patient/Injury factors for LS or Amp	Mixed extremity
Hurvitz, G.; Zalavras, C.; Thordarson, D. B.	Debridement and primary closure of nonhealing foot wounds	2004	Am J Orthop (Belle Mead NJ)	Patient/Injury factors for LS or Amp	No Controlled Comparison; Incorrect patient population

Gasser, B.; Tiefenboeck, T. M.; Boesmueller, S.; Kivaranovic, D.; Bukaty, A.; Platzer, P.	Damage control surgery - Experiences from a level i trauma center	2017	BMC Musculoskeletal Disorders	Environmental factors for LS or Amp	prospective univariate; very low quality
Mathieu, L.; Marty, A.; Ramaki, A.; Najib, A.; Ahmadzai, W.; Fugazzotto, D. J.; Rigal, S.; Shirzai, N.	Current issues with lower extremity amputations in a country at war: experience from the National Military Hospital of Kabul	2014	Eur J Trauma Emerg Surg	Immediate amputation factors	No comparison of interest
Desmond, E. A.; Chou, L. B.	Current concepts review: Lisfranc injuries	2006	Foot and Ankle International	Systematic Reviews	review
Ofer, N.; Baumeister, S.; Megerle, K.; Germann, G.; Sauerbier, M.	Current concepts of microvascular reconstruction for limb salvage in electrical burn injuries	2007	J Plast Reconstr Aesthet Surg	Patient/Injury factors for LS or Amp	Mixed extremity
Williams, T. K.; Clouse, W. D.	Current concepts in repair of extremity venous injury	2016	J Vasc Surg Venous Lymphat Disord	Systematic Reviews	review
Edelstein, D. A.; Florescu, I.	Crushing injuries of the foot and ankle, with complex open fractures: result of a prospective study with a 3 year follow-up	2016	J Med Life	Patient/Injury factors for LS or Amp	Population n<10
Demirkiran, O.; Dikmen, Y.; Utku, T.; Urkmez, S.	Crush syndrome patients after the Marmara earthquake	2003	Emerg Med J	Patient/Injury factors for LS or Amp	No controlled comparison; No relevant RFs; Mixed population;
Sharma, S.; Devgan, A.; Marya, K. M.; Rathee, N.	Critical evaluation of mangled extremity severity scoring system in Indian patients	2003	Injury	Immediate amputation factors	No Controlled Comparison
Khan, M. A.; Jamal, S.; Khaliq, T.	A critical appraisal of management of extremity vascular trauma in civilian population: A PIMS experience	2011	Rawal Medical Journal	Immediate amputation factors	mixed extremity
Clarke, P.; Mollan, R. A.	The criteria for amputation in severe lower limb injury	1994	Injury	Systematic Reviews	Systematic review

Horch, R. E.; Dragu, A.; Lang, W.; Banwell, P.; Leffler, M.; Grimm, A.; Bach, A. D.; Uder, M.; Kneser, U.	Coverage of exposed bones and joints in critically ill patients: Lower extremity salvage with topical negative pressure therapy	2008	Journal of Cutaneous Medicine and Surgery		unclear etiology; no comparisons of interest;
Ceballos, M.; Valderrama, C. O.; Orozco, L. E.; Sanchez, L.; Valderrama, J. P.; Lugo, L. H.	Cost-Utility Analysis of Reconstruction Compared With Primary Amputation for Patients With Severe Lower Limb Trauma in Colombia	2017	J Orthop Trauma	Cost Analysis	
Chung, K. C.; Saddawi-Konefka, D.; Haase, S. C.; Kaul, G.	A cost-utility analysis of amputation versus salvage for Gustilo type IIIB and IIIC open tibial fractures	2009	Plast Reconstr Surg	Cost Analysis	
Covey, D. C.	Conversion From Limb Salvage to Late Amputation: Lessons Learned From Recent Battlefields With Application to Civilian Trauma	2015	J Surg Orthop Adv	Systematic Reviews	References Reviewed
Pinzur, M. S.; Gottschalk, F.; Pinto, M. A.; Smith, D. G.	Controversies in lower extremity amputation	2008	Instr Course Lect	Systematic Reviews	review
Fortuna, G.; DuBose, J. J.; Mendelsberg, R.; Inaba, K.; Haider, A.; Joseph, B.; Skarupa, D.; Selleck, M. J.; O'Callaghan, T. A.; Charlton-Ouw, K.	Contemporary outcomes of lower extremity vascular repairs extending below the knee: A multicenter retrospective study	2016	J Trauma Acute Care Surg	Patient/Injury factors for LS or Amp	No controlled comparison; No relevant RFs
Liang, N. L.; Alarcon, L. H.; Jeyabalan, G.; Avgerinos, E. D.; Makaroun, M. S.; Chaer, R. A.	Contemporary outcomes of civilian lower extremity arterial trauma	2016	J Vasc Surg	Immediate amputation factors; Patient/Injury factors for LS or Amp	Mixed Etiology
Ovaska, M. T.; Madanat, R.; Honkamaa, M.; MÃ¤kinen, T. J.	Contemporary demographics and complications of patients treated for open ankle fractures	2015	Injury	Patient/Injury factors for LS or Amp	No Controlled Comparison; Mixed Etiology

Ali, M. M.; Loretz, L.; Shea, A.; Poorvu, E.; Robinson, W. P.; Schanzer, A.; Messina, L. M.; Baril, D. T.	A contemporary comparative analysis of immediate postoperative prosthesis placement following below-knee amputation	2013	Ann Vasc Surg	Environmental factors for LS or Amp	mixed etiology; unclear etiology
de Mestral, C.; Sharma, S.; Haas, B.; Gomez, D.; Nathens, A. B.	A contemporary analysis of the management of the mangled lower extremity	2013	J Trauma Acute Care Surg	Immediate amputation factors	amputation/salvage outcome; univariate data is retrospective
Moniz, M. P.; Ombrellaro, M. P.; Stevens, S. L.; Freeman, M. B.; Diamond, D. L.; Goldman, M. H.	Concomitant orthopedic and vascular injuries as predictors for limb loss in blunt lower extremity trauma	1997	Am Surg	Patient/Injury factors for LS or Amp	retrospective, univariate - very low quality
Wening, J. V.; Skruodies, B.; Schontag, H.; Jungbluth, K. H.	Compound fractures of the lower leg: clinical experiences and concept of treatment in multiple injury patients	1990	Br J Clin Pract	Immediate amputation factors	No Controlled Comparisons
Velinovic, M. M.; Davidovic, B. L.; Lotina, I. S.; Vranes, R. M.; Djukic, L. P.; Arsov, J. V.; Ristic, V. M.; Kocica, J. M.; Petrovic, L. P.	Complications of operative treatment of injuries of peripheral arteries	2000	Cardiovasc Surg	Patient/Injury factors for LS or Amp	No comparison group; No relevant RFs; mixed etiology
Phisitkul, P.; McKinley, T. O.; Nepola, J. V.; Marsh, J. L.	Complications of locking plate fixation in complex proximal tibia injuries	2007	J Orthop Trauma	Patient/Injury factors for LS or Amp	retrospective, univariate - very low quality
Brown, K. V.; Ramasamy, A.; Tai, N.; MacLeod, J.; Midwinter, M.; Clasper, J. C.	Complications of extremity vascular injuries in conflict	2009	J Trauma	Immediate amputation factors	mixed extremity
Khatri, K.; Sharma, V.; Goyal, D.; Farooque, K.	Complications in the management of closed high-energy proximal tibial plateau fractures	2016	Chin J Traumatol	Patient/Injury factors for LS or Amp	very low quality
Harris, A. M.; Althausen, P. L.; Kellam, J.; Bosse, M. J.; Castillo, R.	Complications following limb-threatening lower extremity trauma	2009	J Orthop Trauma	Patient/Injury factors for LS or Amp	Prospective univariate; very low quality

Ritenour, A. E.; Dorlac, W. C.; Fang, R.; Woods, T.; Jenkins, D. H.; Flaherty, S. F.; Wade, C. E.; Holcomb, J. B.	Complications after fasciotomy revision and delayed compartment release in combat patients	2008	J Trauma	Patient/Injury factors for LS or Amp	No Controlled Comparison; Mixed population
Koval, K. J.; Zhou, W.; Sparks, M. J.; Cantu, R. V.; Hecht, P.; Lurie, J.	Complications after ankle fracture in elderly patients	2007	Foot Ankle Int	Immediate amputation factors	age range doesn't fit the population of interest
Busse, J. W.; Jacobs, C. L.; Swiontkowski, M. F.; Bosse, M. J.; Bhandari, M.	Complex limb salvage or early amputation for severe lower-limb injury: a meta-analysis of observational studies	2007	J Orthop Trauma	Systematic Reviews	References Reviewed.
Lowenberg, D. W.; Githens, M.	Complex limb reconstruction with simultaneous muscle transfer and circular external fixation	2015	Techniques in Orthopaedics	Patient/Injury factors for LS or Amp	No Controlled Comparison; No comparison
Schepers, T.; Rammelt, S.	Complex Foot Injury: Early and Definite Management	2017	Foot Ankle Clin	Patient/Injury factors for LS or Amp	Commentary; no usable data
Kragh, J. F., Jr.; San Antonio, J.; Simmons, J. W.; Mace, J. E.; Stinner, D. J.; White, C. E.; Fang, R.; Aden, J. K.; Hsu, J. R.; Eastridge, B. J.; Jenkins, D. H.; Ritchie, J. D.; Hardin, M. O.; Ritenour, A. E.; Wade, C. E.; Blackbourne, L. H.	Compartment syndrome performance improvement project is associated with increased combat casualty survival	2013	J Trauma Acute Care Surg	Environmental factors for LS or Amp	No Controlled Comparison; Mixed population
Frink, M.; Hildebrand, F.; Krettek, C.; Brand, J.; Hankemeier, S.	Compartment syndrome of the lower leg and foot	2010	Clin Orthop Relat Res	Patient/Injury factors for LS or Amp	Commentary; no usable data
Aydin, A.; Atic, R.	Comparison of the demographic and clinical characteristics, functional status and quality of life of lower extremity amputees to identify the reason for undergoing amputation	2018	J Back Musculoskelet Rehabil	Immediate amputation factors	No RF of interest

Berke, G. M.; Fergason, J.; Milani, J. R.; Hattingh, J.; McDowell, M.; Nguyen, V.; Reiber, G. E.	Comparison of satisfaction with current prosthetic care in veterans and servicemembers from Vietnam and OIF/OEF conflicts with major traumatic limb loss	2010	J Rehabil Res Dev	Environmental factors for LS or Amp	prospective univariate; very low quality
Wei, S. J.; Cai, X. H.; Wang, H. S.; Qi, B. W.; Yu, A. X.	A comparison of primary and delayed wound closure in severe open tibial fractures initially treated with internal fixation and vacuum-assisted wound coverage: a case-controlled study	2014	Int J Surg	Patient/Injury factors for LS or Amp	*wound management*
Keeling, J. J.; Shawen, S. B.; Forsberg, J. A.; Kirk, K. L.; Hsu, J. R.; Gwinn, D. E.; Potter, B. K.	Comparison of functional outcomes following bridge synostosis with non-bone-bridging transtibial combat-related amputations	2013	J Bone Joint Surg Am	Environmental factors for LS or Amp	No relevant RFs
Linberg, A. A.; Roach, K. E.; Campbell, S. M.; Stoneman, P. D.; Gaunaurd, I. A.; Raya, M. A.; Gomez-Orozco, C.; Gailey, R. S.	Comparison of 6-minute walk test performance between male Active Duty soldiers and servicemembers with and without traumatic lower-limb loss	2013	J Rehabil Res Dev	Environmental factors for LS or Amp	No comparison group; No relevant RFs
Staruch, R. M.; Jackson, P. C.; Hodson, J.; Yim, G.; Foster, M. A.; Cubison, T.; Jeffery, S. L.	Comparing the surgical timelines of military and civilians traumatic lower limb amputations	2016	Ann Med Surg (Lond)	Patient/Injury factors for LS or Amp	No Controlled Comparison
Patzkowski, J. C.; Blanck, R. V.; Owens, J. G.; Wilken, J. M.; Kirk, K. L.; Wenke, J. C.; Hsu, J. R.	Comparative effect of orthosis design on functional performance	2012	J Bone Joint Surg Am	Environmental factors for LS or Amp	Mixed Etiology
Ohmine, S.; Kimura, Y.; Saeki, S.; Hachisuka, K.	Community-based survey of amputation derived from the physically disabled person's certification in Kitakyushu City, Japan	2012	Prosthet Orthot Int	Patient/Injury factors for LS or Amp	Mixed Etiology

Seitz, I. A.; Lee, J. C.; Sulo, S.; Shah, V.; Shah, M.; Jimenez, M. L.; Schechter, L. S.	Common characteristics of functional and adverse outcomes in acute lower-extremity trauma reconstruction	2017	European Journal of Plastic Surgery	Patient/Injury factors for LS or Amp	Retrospective Univariate; very low quality
Hollenbeck, S. T.; Woo, S.; Ong, S.; Fitch, R. D.; Erdmann, D.; Levin, L. S.	The combined use of the Ilizarov method and microsurgical techniques for limb salvage	2009	Ann Plast Surg	Patient/Injury factors for LS or Amp	Amputation/Salvage as Outcome
McKee, M. D.; Yoo, D. J.; Zdero, R.; Dupere, M.; Wild, L.; Schemitsch, E. H.; Mahoney, J.	Combined single-stage osseous and soft tissue reconstruction of the tibia with the Ilizarov method and tissue transfer	2008	J Orthop Trauma	Immediate amputation factors	No comparison of interest
Desai, P.; Audige, L.; Suk, M.	Combined orthopedic and vascular lower extremity injuries: sequence of care and outcomes	2012	Am J Orthop (Belle Mead NJ)	Immediate amputation factors	No controlled comparison
Odland, M. D.; Gisbert, V. L.; Gustilo, R. B.; Ney, A. L.; Blake, D. P.; Bubrick, M. P.	Combined orthopedic and vascular injury in the lower extremities: indications for amputation	1990	Surgery	Immediate amputation factors	Amp/Sal as outcome; retrospective univariate
Purcell, R. L.; Donohue, M. A.; Saxena, S. K.; Gordon, W. T.; Lewandowski, L. L.	Combat-related acetabular fractures: Outcomes of open versus closed injuries	2018	Injury	Patient/Injury factors for LS or Amp	No Controlled Comparison
Jones, P. E.; Meyer, R. M.; Faillace, W. J.; Landau, M. E.; Smith, J. K.; McKay, P. L.; Nest, L. J.	Combat Injury of the Sciatic Nerve - An Institutional Experience	2018	Mil Med	Patient/Injury factors for LS or Amp	No Controlled Comparison
Ortiz, D., 3rd; Blair, J. A.; Dromsky, D. M.; Pyo, J.; Owens, J. G.; Hsu, J. R.	Collaborative Establishment of an Integrated Orthotic and Rehabilitation Pathway	2015	J Surg Orthop Adv	Environmental factors for LS or Amp	No Controlled Comparison
Van Eck, C. F.; McGough, R. L.	Clinical outcome of osseointegrated prostheses for lower extremity amputations: A systematic review of the literature	2015	Current Orthopaedic Practice	Systematic Reviews	References Reviewed

Ballas, R.; Saetta, G.; Peuchot, C.; Elkienbaum, P.; Poinsot, E.	Clinical features of 27 shark attack cases on La RÃ©union Island	2017	Journal of Trauma and Acute Care Surgery	Immediate amputation factors	mixed extremity
Zhang, X.; Liu, Y.; Peng, A.; Wang, H.; Zhang, Y.	Clinical efficacy and prognosis factors of open calcaneal fracture: A retrospective study	2015	International Journal of Clinical and Experimental Medicine	Patient/Injury factors for LS or Amp	No Controlled Comparison
Zhang, Z. Y.; Feng, S. M.; Zhou, M. M.; Tao, Y. L.; Wang, A. G.	Clinical application of anterolateral thigh perforator flap for the reconstruction of severe tibia exposure	2015	Eur Rev Med Pharmacol Sci	Patient/Injury factors for LS or Amp	No Controlled Comparison; Mixed Etiology
Sproule, J. A.; Chin, T.; Amin, A.; Daniels, T.; Younger, A. S.; Boyd, G.; Glazebrook, M. A.	Clinical and radiographic outcomes of the Mobility Total Ankle arthroplasty system: Early results from a prospective multicenter study	2013	Foot and Ankle International	Patient/Injury factors for LS or Amp	Doesn't address question of interest;
Banderker, M. A.; Navsaria, P. H.; Edu, S.; Bekker, W.; Nicol, A. J.; Naidoo, N.	Civilian popliteal artery injuries	2012	S Afr J Surg	Immediate amputation factors	No Controlled Comparisons
Kusljugic, A.; Kapidzic-Durakovic, S.; Kudumovic, Z.; Cickusic, A.	Chronic low back pain in individuals with lower-limb amputation	2006	Bosn J Basic Med Sci	Patient/Injury factors for LS or Amp	No comparison group; No relevant RFs
Klaue, K.	Chopart fractures	2004	Injury	Systematic Reviews	review
Chiu, Y. C.; Chung, T. C.; Wu, C. H.; Tsai, K. L.; Jou, I. M.; Tu, Y. K.; Ma, C. H.	Chopart amputation with tibiotalocalcaneal arthrodesis and free flap reconstruction for severe foot crush injury	2018	Bone Joint J	Patient/Injury factors for LS or Amp	No relevant RFs
MacKenzie, E. J.; Bosse, M. J.; Kellam, J. F.; Burgess, A. R.; Webb, L. X.; Swiontkowski, M. F.; Sanders, R. W.; Jones, A. L.; McAndrew, M. P.; Patterson, T. M.; McCarthy, M. L.	Characterization of patients with high-energy lower extremity trauma	2000	J Orthop Trauma	Immediate amputation factors	Amputation/Salvage as Outcome

Tennent, D. J.; Polfer, E. M.; Sgromolo, N. M.; Krueger, C. A.; Potter, B. K.	Characterization of disability following traumatic through knee and transfemoral amputations	2018	Injury	Patient/Injury factors for LS or Amp	Retrospective Univariate; very low quality
Li, Z.; Zhao, L.; Wang, K.; Cheng, J.; Zhao, Y.; Ren, W.	Characteristics and treatment of vascular injuries: a review of 387 cases at a Chinese center	2014	Int J Clin Exp Med	Immediate amputation factors	mixed etiology
Dou, C.; Liu, Y.; Wang, Q.; Zhang, Y.	Characteristics and outcomes of traumatic major extremity amputations in Chinese population	2016	International Journal of Clinical and Experimental Medicine	Immediate amputation factors	mixed extremity
Connolly, M.; Ibrahim, Z. R.; Johnson, O. N., 3rd	Changing paradigms in lower extremity reconstruction in war-related injuries	2016	Mil Med Res	Systematic Reviews	Systematic review;
Jacobs, N.; Taylor, D. M.; Parker, P. J.	Changes in surgical workload at the JF Med Gp Role 3 Hospital, Camp Bastion, Afghanistan, November 2008-November 2010	2012	Injury	Environmental factors for LS or Amp	No controlled comparison; No relevant RFs
Taddeo, J.; Devine, M.; McAlister, V. C.	Cervical spine injury in dismounted improvised explosive device trauma	2015	Can J Surg	Patient/Injury factors for LS or Amp	Upper limb injury; No Controlled Comparison
Pala, E.; Mavrogenis, A. F.; Angelini, A.; Henderson, E. R.; Letson, G. D.; Ruggieri, P.	Cemented versus cementless endoprostheses for lower limb salvage surgery	2013	Journal of B.U.ON.	Immediate amputation factors	Cancer pts
Singleton, J. A.; Walker, N. M.; Gibb, I. E.; Bull, A. M.; Clasper, J. C.	Case suitability for definitive through knee amputation following lower extremity blast trauma: analysis of 146 combat casualties, 2008-2010	2014	J R Army Med Corps	Immediate amputation factors	mixed extremity; no stratified data of interest
Lantry, J. M.; Perumal, V.; Roberts, C. S.	Can patterns of segmental injuries of the foot and ankle predict amputation and disability?	2009	J Surg Orthop Adv	Immediate amputation factors	No controlled comparison

Wardak, M.; Wardak, E.; Goel, A.	Calcanisation of tibia using Ilizarov fixator in crush injuries of hindfoot: a new method	2008	Int Orthop	Patient/Injury factors for LS or Amp	No Controlled Comparison; No relevant RFs
Gitajn, I. L.; Abousayed, M.; Toussaint, R. J.; Vrahas, M.; Kwon, J. Y.	Calcaneal avulsion fractures: a case series of 33 patients describing prognostic factors and outcomes	2015	Foot Ankle Spec	Patient/Injury factors for LS or Amp	Unclear trauma; mixed etiology
Kennedy, P. J.; Young, W. M.; Deva, A. K.; Haertsch, P. A.	Burns and amputations: a 24-year experience	2006	J Burn Care Res	Immediate amputation factors	Mixed etiology; mixed population
Kim, P. S.; Malin, E.; Kirkham, J. C.; Helliwell, L. A.; Ibrahim, A. M.; Tobias, A. M.; Upton, J.; Lee, B. T.; Lin, S. J.	The Boston marathon bombings: the early plastic surgery experience of one Boston hospital	2013	Plast Reconstr Surg	Patient/Injury factors for LS or Amp	Case series; mixed population
Pelissier, P.; Boireau, P.; Martin, D.; Baudet, J.	Bone reconstruction of the lower extremity: complications and outcomes	2003	Plast Reconstr Surg	Patient/Injury factors for LS or Amp	No controlled comparison; No relevant RFs
Flint, J. H.; Wade, A. M.; Stocker, D. J.; Pasquina, P. F.; Howard, R. S.; Potter, B. K.	Bone mineral density loss after combat-related lower extremity amputation	2014	J Orthop Trauma	Environmental factors for LS or Amp	No Controlled Comparison
Harrell, D. J.; Spain, D. A.; Bergamini, T. M.; Miller, F. B.; Richardson, J. D.	Blunt popliteal artery trauma: a challenging injury	1997	Am Surg	Patient/Injury factors for LS or Amp	Amputation/Salvage as Outcome
Hossny, A.	Blunt popliteal artery injury with complete lower limb ischemia: is routine use of temporary intraluminal arterial shunt justified?	2004	J Vasc Surg	Immediate amputation factors	No Controlled Comparisons
Abou-Sayed, H.; Berger, D. L.	Blunt lower-extremity trauma and popliteal artery injuries: revisiting the case for selective arteriography	2002	Arch Surg	Immediate amputation factors	Mixed population
Singleton, J. A.; Gibb, I. E.; Bull, A. M.; Clasper, J. C.	Blast-mediated traumatic amputation: evidence for a	2014	J R Army Med Corps	Patient/Injury factors for LS or Amp	No Controlled Comparison; Mixed population

	revised, multiple injury mechanism theory				
Gwinn, D. E.; Tintle, S. M.; Kumar, A. R.; Andersen, R. C.; Keeling, J. J.	Blast-induced lower extremity fractures with arterial injury: prevalence and risk factors for amputation after initial limb-preserving treatment	2011	J Orthop Trauma	Patient/Injury factors for LS or Amp; Environmental factors for LS or Amp	No controlled comparisons ; very low quality
Watson, J. D.; Gifford, S. M.; Clouse, W. D.	Biochemical markers of acute limb ischemia, rhabdomyolysis, and impact on limb salvage	2014	Semin Vasc Surg		review
Dougherty, P. J.; McFarland, L. V.; Smith, D. G.; Reiber, G. E.	Bilateral transfemoral/transtibial amputations due to battle injuries: a comparison of Vietnam veterans with Iraq and Afghanistan servicemembers	2014	Clin Orthop Relat Res	Environmental factors for LS or Amp	Mixed population
Cui, S.; Bauer, J. M.; Mir, H.; Cannada, L. K.	Bilateral tibial shaft fractures: A multicenter analysis	2017	Current Orthopaedic Practice	Patient/Injury factors for LS or Amp	No comparison group; No relevant RFs
Lisboa, F. A.; Forsberg, J. A.; Brown, T. S.; Gage, F. A.; Potter, B. K.; Elster, E. A.	Bilateral lower-extremity amputation wounds are associated with distinct local and systemic cytokine response	2013	Surgery	Patient/Injury factors for LS or Amp	mixed extremity; No usable data
Atesalp, A. S.; Erler, K.; Gur, E.; Koseglu, E.; Kirdemir, V.; Demiralp, B.	Bilateral lower limb amputations as a result of landmine injuries	1999	Prosthet Orthot Int	Environmental factors for LS or Amp	No Controlled Comparison
Schmidhammer, R.; Nimmervoll, R.; Pelinka, L. E.; Huber, W.; Schrei, K.; Kroepfl, A.; Redl, H.	Bilateral lower leg replantation versus prosthetic replacement: long-term outcome of amputation after an occupational railroad accident	2004	J Trauma	Patient/Injury factors for LS or Amp	3 patients
Scalea, J. R.; Crawford, R.; Scurci, S.; Danquah, J.; Sarkar, R.; Kufera, J.; O'Connor, J.; Scalea, T. M.	Below-the-knee arterial injury: the type of vessel may be more important than the number of vessels injured	2014	J Trauma Acute Care Surg	Immediate amputation factors	Amp/Sal as outcome

Simper, L. B.	Below knee amputation in war surgery: a review of 111 amputations with delayed primary closure	1993	J Trauma	Immediate amputation factors	No usable data
Barros D'Sa, A. A.; Harkin, D. W.; Blair, P. H.; Hood, J. M.; McIlrath, E.	The Belfast approach to managing complex lower limb vascular injuries	2006	Eur J Vasc Endovasc Surg	Environmental factors for LS or Amp	no controlled comparison
Hinsley, D. E.; Phillips, S. L.; Clasper, J. S.	Ballistic fractures during the 2003 Gulf conflict--early prognosis and high complication rate	2006	J R Army Med Corps	Patient/Injury factors for LS or Amp	Mixed extremity; no relevant RFs;
Degiannis, E.; Bowley, D. M.; Bode, F.; Lynn, W. R.; Glapa, M.; Baxter, S.; Shapey, J.; Smith, M. D.; Doll, D.	Ballistic arterial trauma to the lower extremity: recent South African experience	2007	Am Surg	Immediate amputation factors	No comparison of interest
Horst, F.; Gilbert, B. J.; Nunley, J. A.	Avascular necrosis of the talus: Current treatment options	2004	Foot and Ankle Clinics	Patient/Injury factors for LS or Amp	Commentary; no usable data
Adelaar, R. S.; Madrian, J. R.	Avascular necrosis of the talus	2004	Orthopedic Clinics of North America	Patient/Injury factors for LS or Amp	Review/Commentary; no usable data
Myeroff, C.; Archdeacon, M.	Autogenous bone graft: Donor sites and techniques	2011	Journal of Bone and Joint Surgery - Series A	Systematic Reviews	review
Shackelford, S. A.; Del Junco, D. J.; Powell-Dunford, N.; Mazuchowski, E. L.; Howard, J. T.; Kotwal, R. S.; Gurney, J.; Butler, F. K., Jr.; Gross, K.; Stockinger, Z. T.	Association of Prehospital Blood Product Transfusion During Medical Evacuation of Combat Casualties in Afghanistan With Acute and 30-Day Survival	2017	Jama	Environmental factors for LS or Amp	Mixed Extremity
Kulkarni, J.; Adams, J.; Thomas, E.; Silman, A.	Association between amputation, arthritis and osteopenia in British male war veterans with major lower limb amputations	1998	Clin Rehabil	Patient/Injury factors for LS or Amp	No relevant RFs

Morrison, J. J.; Hunt, N.; Midwinter, M.; Jansen, J.	Associated injuries in casualties with traumatic lower extremity amputations caused by improvised explosive devices	2012	Br J Surg	Immediate amputation factors	No Controlled Comparison
Bosse, M. J.; Murray, C. K.; Carlini, A. R.; Firoozabadi, R.; Manson, T.; Scharfstein, D. O.; Wenke, J. C.; Zadnik, M.; Castillo, R. C.	Assessment of Severe Extremity Wound Bioburden at the Time of Definitive Wound Closure or Coverage: Correlation With Subsequent Postclosure Deep Wound Infection (Bioburden Study)	2017	J Orthop Trauma	Patient/Injury factors for LS or Amp	No relevant RFs
Kwasnicki, R. M.; Hettiaratchy, S.; Jarchi, D.; Nightingale, C.; Wordsworth, M.; Simmons, J.; Yang, G. Z.; Darzi, A.	Assessing functional mobility after lower limb reconstruction: a psychometric evaluation of a sensor-based mobility score	2015	Ann Surg	Immediate amputation factors	No Risk Factor of Interest
Faris, I. B.; Raptis, S.; Fitridge, R.	Arterial injury in the lower limb from blunt trauma	1997	Aust N Z J Surg	Immediate amputation factors; Patient/Injury factors for LS or Amp	No Controlled Comparison
Sriussadaporn, S.	Arterial injuries of the lower extremity from blunt trauma	1997	J Med Assoc Thai	Immediate amputation factors	No controlled comparisons
Andrikopoulos, V.; Antoniou, I.; Panoussis, P.	Arterial injuries associated with lower-extremity fractures	1995	Cardiovasc Surg	Patient/Injury factors for LS or Amp	Mixed Etiology
Quirke, T. E.; Sharma, P. K.; Boss, W. K., Jr.; Oppenheim, W. C.; Rauscher, G. E.	Are type IIIC lower extremity injuries an indication for primary amputation	1996	J Trauma	Immediate amputation factors	no controlled comparison
Papadakis, S. A.; Babourda, E. C.; Mitsitskas, T. C.; Markakidis, S.; Bachtis, C.; Koukouvis, D.; Tentes, A. A.	Anti-personnel landmine injuries during peace: experience in a European country	2006	Prehosp Disaster Med	Immediate amputation factors	Case Series
Helgeson, M. D.; Potter, B. K.; Tucker, C. J.; Frisch, H. M.; Shawen, S. B.	Antibiotic-impregnated calcium sulfate use in combat-related open fractures	2009	Orthopedics	Environmental factors for LS or Amp	Mixed extremity; no relevant RF

Park, J. E.; Rodriguez, E. D.; Bluebond-Langer, R.; Bochicchio, G.; Christy, M. R.; Bochicchio, K.; Scalea, T. M.	The anterolateral thigh flap is highly effective for reconstruction of complex lower extremity trauma	2007	J Trauma	Immediate amputation factors; Patient/Injury factors for LS or Amp	No usable data
Bal, G. K.; Kuo, R. S.; Chapman, J. R.; Henley, M. B.; Benirschke, S. K.; Claudi, B. F.	The anterior T-frame external fixator for high-energy proximal tibial fractures	2000	Clin Orthop Relat Res	Patient/Injury factors for LS or Amp	No comparison group
Moehring, H. D.; Tan, R. T.; Marder, R. A.; Lian, G.	Ankle dislocation	1994	J Orthop Trauma	Immediate amputation factors	No Controlled Comparison
Jana Neto, F. C.; de Paula Canal, M.; Alves, B. A.; Ferreira, P. M.; Ayres, J. C.; Alves, R.	Analysis of the characteristics of patients with open tibial fractures of Gustilo and Anderson type III	2016	Rev Bras Ortop	Immediate amputation factors	No Controlled Comparison
Webb, L. X.; Bosse, M. J.; Castillo, R. C.; MacKenzie, E. J.	Analysis of surgeon-controlled variables in the treatment of limb-threatening type-III open tibial diaphyseal fractures	2007	J Bone Joint Surg Am	Environmental factors for LS or Amp	Prospective univariate; very low quality
Hu, R.; Ren, Y. J.; Yan, L.; Yi, X. C.; Ding, F.; Han, Q.; Cheng, W. J.	Analysis of Staged Treatment for Gustilo Anderson IIIB/C Open Tibial Fractures	2018	Indian J Orthop	Patient/Injury factors for LS or Amp	No relevant RFs
Yip, V. S.; Teo, N. B.; Johnstone, R.; Robertson, A. G.; Robertson, J. H.; Welch, G. H.; Kettlewell, S.	An analysis of risk factors associated with failure of below knee amputations	2006	World J Surg	Patient/Injury factors for LS or Amp	Wrong population; non-trauma;
Dillingham, T. R.; Spellman, N. T.; Braverman, S. E.; Zeigler, D. N.; Belandres, P. V.; Bryant, P. R.; Salcedo, V. L.; Schneider, R. L.	Analysis of casualties referred to Army physical medicine services during the Persian Gulf conflict	1993	Am J Phys Med Rehabil	Patient/Injury factors for LS or Amp	No Controlled Comparison; Mixed extremity
Salimi, J.; Abbasi, M.; Khaji, A.; Zargar, M.	Analysis of 274 patients with extremity injuries caused by the Bam earthquake	2009	Chin J Traumatol	Immediate amputation factors	No Controlled Comparison

Moore, J.; Berberian, W. S.; Lee, M.	An analysis of 2 fusion methods for the treatment of osteomyelitis following fractures about the ankle	2015	Foot Ankle Int	Patient/Injury factors for LS or Amp	No Controlled Comparison
Korver, A. J.	Amputees in a hospital of the International Committee of the Red Cross	1993	Injury	Patient/Injury factors for LS or Amp	*mixed-upper & lower extremity*
Raya, M. A.; Gailey, R. S.; Gaunaurd, I. A.; Ganyard, H.; Knapp-Wood, J.; McDonough, K.; Palmisano, T.	Amputee mobility predictor-bilateral: a performance-based measure of mobility for people with bilateral lower-limb loss	2013	J Rehabil Res Dev	Environmental factors for LS or Amp	No usable data
Baum, B. S.; Hobara, H.; Kim, Y. H.; Shim, J. K.	Amputee Locomotion: Ground Reaction Forces During Submaximal Running With Running-Specific Prostheses	2016	J Appl Biomech	Environmental factors for LS or Amp	Mixed etiology; no comparison group
	Amputations of upper and lower extremities, active and reserve components, U.S. Armed Forces, 2000-2011	2012	Msmr	Patient/Injury factors for LS or Amp	No Controlled Comparison; No usable data
Stansbury, L. G.; Lalliss, S. J.; Branstetter, J. G.; Bagg, M. R.; Holcomb, J. B.	Amputations in U.S. military personnel in the current conflicts in Afghanistan and Iraq	2008	J Orthop Trauma	Patient/Injury factors for LS or Amp	No Controlled Comparison
Soroush, A.; Falahati, F.; Zargar, M.; Soroush, M.; Khateri, S.; Khaji, A.	Amputations due to landmine and unexploded ordinances in post-war Iran	2008	Arch Iran Med	Immediate amputation factors	No usable data; does not address question of interest;
Chaloner, E. J.; Flora, H. S.; Ham, R. J.	Amputations at the London hospital 1852-1857	2001	Journal of the Royal Society of Medicine	Immediate amputation factors	Mixed population; unclear trauma
van Dongen, T. T.; Huizinga, E. P.; de Kruijff, L. G.; van der Krans, A. C.; Hoogendoorn, J. M.; Leenen, L. P.; Hoencamp, R.	Amputation: Not a failure for severe lower extremity combat injury	2017	Injury	Patient/Injury factors for LS or Amp	No relevant RFs

Hertel, R.; Strebel, N.; Ganz, R.	Amputation versus reconstruction in traumatic defects of the leg: outcome and costs	1996	J Orthop Trauma	Patient/Injury factors for LS or Amp	prospective univariate; very low quality
Demiralp, B.; Ege, T.; Kose, O.; Yurttas, Y.; Basbozkurt, M.	Amputation versus functional reconstruction in the management of complex hind foot injuries caused by land-mine explosions: a long-term retrospective comparison	2014	Eur J Orthop Surg Traumatol	Immediate amputation factors	No Controlled Comparison
Fioravanti, M.; Maman, P.; Curvale, G.; Rochwerger, A.; Mattei, J. C.	Amputation versus conservative treatment in severe open lower-limb fracture: A functional and quality-of-life study	2018	Orthop Traumatol Surg Res	Patient/Injury factors for LS or Amp	No relevant RFs
Tomaino, M. M.	Amputation or salvage of type 3B/3C tibial fractures: what the literature says about outcomes	2001	Am J Orthop (Belle Mead NJ)		review
Jacobs, C.; Siozos, P.; Raible, C.; Wendl, K.; Frank, C.; Grutzner, P. A.; Wolfl, C.	Amputation of a lower extremity after severe trauma	2011	Oper Orthop Traumatol	Immediate amputation factors	Commentary; no usable data
Mohamed, I. A.; Ahmed, A. R.; Ahmed, M. E.	Amputation and prostheses in Khartoum	1997	J R Coll Surg Edinb	Patient/Injury factors for LS or Amp	mixed etiology
Hill, S. W.; Patla, A. E.; Ishac, M. G.; Adkin, A. L.; Supan, T. J.; Barth, D. G.	Altered kinetic strategy for the control of swing limb elevation over obstacles in unilateral below-knee amputee gait	1999	Journal of Biomechanics	Environmental factors for LS or Amp	Population n<10
Penn-Barwell, J. G.; Fries, C. A.; Sargeant, I. D.; Bennett, P. M.; Porter, K.	Aggressive soft tissue infections and amputation in military trauma patients	2012	J R Nav Med Serv	Immediate amputation factors	prospective univariate; very low quality
Mundy, L. R.; Truong, T.; Shammas, R. L.; Gage, M. J.; Pomann, G. M.; Hollenbeck, S. T.	Acute Treatment Patterns for Lower Extremity Trauma in the United States: Flaps versus Amputation	2017	J Reconstr Microsurg	Patient/Injury factors for LS or Amp; Environmental factors for LS or Amp	Amputation/Salvage as Outcome

Hayakawa, H.; Aldington, D. J.; Moore, R. A.	Acute traumatic compartment syndrome: A systematic review of results of fasciotomy	2009	Trauma	Patient/Injury factors for LS or Amp	Mixed population
Penn-Barwell, J. G.; Bennett, P. M.; Kay, A.; Sargeant, I. D.	Acute bilateral leg amputation following combat injury in UK servicemen	2014	Injury	Immediate amputation factors	No usable data
Asfar, S.; Al-Ali, J.; Safar, H.; Al-Bader, M.; Farid, E.; Ali, A.; Kansou, J.	155 vascular injuries: a retrospective study in Kuwait, 1992-2000	2002	Eur J Surg	Immediate amputation factors	No Controlled Comparison; Mixed population; Mixed etiology
Akkas, M.; Ay, D.; Metin Aksu, N.; Gunalp, M.	10-year evaluation of train accidents	2011	Ulus Travma Acil Cerrahi Derg	Immediate amputation factors	Mixed population
Franz, R. W.; Shah, K. J.; Halaharvi, D.; Franz, E. T.; Hartman, J. F.; Wright, M. L.	A 5-year review of management of lower extremity arterial injuries at an urban level I trauma center	2011	J Vasc Surg	Patient/Injury factors for LS or Amp	No comparison group
Bibbo, C.; Siddiqui, N.; Fink, J.; Powers, J.; Ehrlich, D. A.; Kovach, S. J.	Wound Coverage Options for Soft Tissue Defects Following Calcaneal Fracture Management (Operative/Surgical)	2018	Clinics in Podiatric Medicine and Surgery		review
Lee, M.; Choi, W. J.; Han, S. H.; Jang, J.; Lee, J. W.	Uncontrolled diabetes as a potential risk factor in tibiotalocalcaneal fusion using a retrograde intramedullary nail	2018	Foot and Ankle Surgery	Patient/Injury factors for LS or Amp	not high-energy;
Reiber, G. E.; McFarland, L. V.; Hubbard, S.; Maynard, C.; Blough, D. K.; Gambel, J. M.; Smith, D. G.	Servicemembers and veterans with major traumatic limb loss from Vietnam war and OIF/OEF conflicts: survey methods, participants, and summary findings	2010	J Rehabil Res Dev	Environmental factors for LS or Amp	Retrospective Univariate; very low quality
Eskridge, S. L.; Clouser, M. C.; McCabe, C. T.; Watrous, J. R.; Galarneau, M. R.	Self-Reported Functional Status in US Service Members After Combat-Related Amputation	2019	Am J Phys Med Rehabil	Patient/Injury factors for LS or Amp	prospective univariate; very low quality
Yang, X.; Yan, H.; Fan, Y.; Dong, J.; Cai, Y.; Li, Z.	Risk factors of free anterolateral thigh flap failure for reconstruction of lower-limb defects: A 10-year experience	2018	International Journal of Clinical and Experimental Medicine	Patient/Injury factors for LS or Amp	Mixed trauma

Roepke, A. M.; Turner, A. P.; Henderson, A. W.; Goldberg, S. B.; Norvell, D. C.; Czerniecki, J. M.; Williams, R. M.	A Prospective Longitudinal Study of Trajectories of Depressive Symptoms after Dysvascular Amputation	2018	Arch Phys Med Rehabil	Patient/Injury factors for LS or Amp	no high-energy
Ladlow, P.; Bennett, N.; Phillip, R.; Dharm-Datta, S.; McMenemy, L.; Bennett, A. N.	Passive-dynamic ankle-foot orthosis improves medium-term clinical outcomes after severe lower extremity trauma	2018	J R Army Med Corps	Environmental factors for LS or Amp	Retrospective Univariate; very low quality
Butler, W. J.; Calvo, R. Y.; Sise, M. J.; Bowie, J. M.; Wessels, L. E.; Bansal, V.; Beth Sise, C.	Outcomes for popliteal artery injury repair after discharge: A large-scale population-based analysis	2019	J Trauma Acute Care Surg	Immediate amputation factors	Unclear trauma
Polfer, E. M.; Hoyt, B. W.; Bevevino, A. J.; Forsberg, J. A.; Potter, B. K.	Knee Disarticulation versus Transfemoral Amputations: Functional Outcomes	2019	J Orthop Trauma	Patient/Injury factors for LS or Amp	No RF of interest
Russell Esposito, E.; Schmidtbauer, K. A.; Wilken, J. M.	Experimental comparisons of passive and powered ankle-foot orthoses in individuals with limb reconstruction	2018	J Neuroeng Rehabil	Environmental factors for LS or Amp	
Wareham, A. P.; Sparkes, V.	Effect of one session of mirror therapy on phantom limb pain and recognition of limb laterality in military traumatic lower limb amputees: a pilot study	2018	J R Army Med Corps	Patient/Injury factors for LS or Amp	does not address question of interest
Haddix, K. P.; Clement, R. C.; Tennant, J. N.; Ostrum, R. F.	Complications Following Operatively Treated Ankle Fractures in Insulin- and Non-Insulin-Dependent Diabetic Patients	2018	Foot & ankle specialist	Patient/Injury factors for LS or Amp	Incorrect pts population
Van Niekerk, A. H.; Birkholtz, F. F.; De Lange, P.; Tetsworth, K.; Hohmann, E.	Circular external fixation and cemented PMMA spacers for the treatment of complex tibial fractures and infected nonunions with segmental bone loss	2017	Journal of Orthopaedic Surgery	Patient/Injury factors for LS or Amp	doesn't address question of interest

Rollo, G.; Falzarano, G.; Ronga, M.; Bisaccia, M.; Grubor, P.; Erasmo, R.; Rocca, G.; Tome-Bermejo, F.; Gomez-Garrido, D.; Pichierri, P.; Rinonapoli, G.; Meccariello, L.	Challenges in the management of floating knee injuries: Results of treatment and outcomes of 224 consecutive cases in 10 years	2018	Injury	Patient/Injury factors for LS or Amp	No rf of interest
Eskridge, S. L.; Hill, O. T.; Clouser, M. C.; Galarneau, M. R.	Association of Specific Lower Extremity Injuries With Delayed Amputation	2018	Mil Med	Patient/Injury factors for LS or Amp	not best available; very low quality (exploratory, retrospective)
Em, S.; Karakoc, M.; Sariyildiz, M. A.; Bozkurt, M.; Aydin, A.; Cevik, R.; Nas, K.	Assessment of sexual function and quality of life in patients with lower limb amputations	2018	J Back Musculoskelet Rehabil	Patient/Injury factors for LS or Amp	no comparison group
Casey, K.; Demers, P.; Deben, S.; Nelles, M. E.; Weiss, J. S.	Outcomes after long-term follow-up of combat-related extremity injuries in a multidisciplinary limb salvage clinic	2015	Ann Vasc Surg	Patient/Injury factors for LS or Amp	No controlled comparisons; retrospective; very low quality
Sharrock, A. E.; Tai, N.; Perkins, Z.; White, J. M.; Remick, K. N.; Rickard, R. F.; Rasmussen, T. E.	Management and outcome of 597 wartime penetrating lower extremity arterial injuries from an international military cohort	2019	J Vasc Surg		very low quality

AAOS CPG Approval Bodies

Committee on Evidence Based Quality and Value

The committee on Evidence Based Quality and Value (EBQV) consists of twenty-three AAOS members who implement evidence-based quality initiatives such as clinical practice guidelines (CPGs), systematic literature reviews (SRs) and appropriate use criteria (AUCs). They also oversee the dissemination of related educational materials and promote the utilization of orthopaedic value products by the Academy's leadership and its members.

Council on Research and Quality

The Council on Research and Quality promotes ethically and scientifically sound clinical and translational research to sustain patient care in musculoskeletal disorders. The Council also serves as the primary resource for educating its members, the public, and public policy makers regarding evidenced-based medical practice, orthopaedic devices and biologics, regulatory pathways and standards development, patient safety, and other related important research and quality areas. The Council is comprised of the chairs of the committees on Devices, Biologics, and Technology, Patient Safety, Research Development, U.S. and chair and section leaders of the Evidence Based Quality and Value committee. Also on the Council are the second vice-president, three members at large, and representatives of the Diversity Advisory Board, Women's Health Issues Advisory Board, Board of Specialty Societies (BOS), Board of Councilors (BOC), Communications Cabinet, Orthopaedic Research Society (ORS), Orthopedic Research and Education Foundation (OREF).

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The 17-member Board of Directors manage the affairs of the AAOS, set policy, and oversee the Strategic Plan.

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February 12, 2020

Kaitlyn S. Sevarino, MBA, CAE
Senior Manager, Department of Clinical Quality and Value
AAOS
9400 W. Higgins Road
Rosemont, IL 60018

Dear Ms. Sevarino,

The American Orthopaedic Foot & Ankle Society board of directors voted to endorse the AAOS Appropriate Use Criteria as well as the Clinical Practice Guideline for Limb Salvage or Early Amputation.

This endorsement provides permission for the AAOS to officially list our organization as an endorser for both documents and reprint our logo in the introductory sections of the appropriate use criteria and clinical practice guideline documents.

Please let me know when the updated documents with AOFAS endorsement listed are posted so that AOFAS can direct members to review them. On behalf of AOFAS, thank you for the opportunity to become involved in these important activities as writing and voting panel members.

Sincerely,

Elaine M. Leighton, MPH, CAE
Executive Director

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February 13, 2020

Kaitlyn S. Sevarino, MBA, CAE
Senior Manager,
Department of Clinical Quality and Value

Dear Ms. Sevarino,

The OTA has voted to endorse the AAOS/METRC Clinical Practice Guideline for Limb Salvage or Early Amputation. This endorsement implies permission for the AAOS to officially list our organization as an endorser of this clinical practice guideline and reprint our logo in the introductory section of the clinical practice guideline review document.

Sincerely,

Kathleen Caswell

Kathleen Caswell
OTA Executive Director