AAOS Clinical Guideline on Knee Injury
Support Document

Overview

Goals & Rationale

This clinical guideline has been created to improve patient care by outlining the appropriate information gathering and decision making processes involved in managing acute knee injuries in adults. Musculoskeletal care is provided in many different settings by many different providers. This guideline has been created as an educational tool to guide qualified physicians through a series of diagnostic and treatment decisions in an effort to improve the quality and efficiency of care.

This guideline should not be construed as including all proper methods of care or excluding methods of care reasonably directed to obtaining the same results. The ultimate judgement regarding any specific procedure or treatment must be made in light of all circumstances presented by the patient and the needs and resources particular to the locality or institution.

The major weakness of the Phase I Knee injury guideline is that in the majority of situations presented, a specific diagnosis is not developed. By allowing the first contact physician to develop an initial treatment plan without a definitive diagnosis, it is difficult to judge the efficacy of the treatment. Clearly the strongest literature included those articles in which randomized trials compared the accuracy of diagnosis. Several of those articles are cited in the reference section.

Scope & Organization

This document addresses the diagnosis and treatment of acute knee injuries in skeletally mature individuals. The guideline provides information through the patient's first four weeks of treatment. This guideline does not address all possible conditions associated with acute knee injuries, only those that account for the majority of initial visits to physicians. The guideline addresses the following conditions: ligamentous injury, meniscal tear, patellar dislocation/subluxation, contusion, and patella or quadriceps tendon rupture. This guideline provides the user with information used during the initial assessment of the patient, through several critical exclusionary diagnoses and then on to the determination of a differential diagnosis. Once a differential diagnosis is reached, initial treatment is suggested. The Phase I flow chart ends where referral to a musculoskeletal specialist is recommended.

Methodology

Panel: Charles Bush-Joseph, MD, Chairman, James Ferrari, MD, Robert Schenck, MD, James Williams, MD, Marc Galloway, MD, William Knopp, MD, Francis Fesmire, MD.

Process Overview: The guideline was developed by a multi-professional panel led by the American Academy of Orthopaedic Surgeons Guidelines Committee with the AAOS Knee Injury Evidence Analysis Work Group, the American College of Emergency Physicians, and the American Academy of Family Physicians. The work group, with the assistance of the AAOS and various private and academic medical centers, completed a review of the relevant literature. The workgroup then participated in a series of meetings

in which information from the literature was extracted and transformed into draft "decision trees". Information from the literature was supplemented by the consensus opinion of the workgroup when necessary. Multiple iterations of written review were then conducted by the participating societies and individuals. Modifications, when supported by references from the literature were then incorporated by the workgroup chairman.

In developing and revising this guideline, the American Academy of Orthopaedic Surgeons Knee Pain Evidence Analysis Work Group has made every effort to be consistent with the American Medical Association's Attributes of Practice Parameters. In brief, the guideline was developed by physician organizations with scientific and clinical expertise, and they are based on a reliable methodology that integrates science and consensus. They are comprehensive and specific, are based on current information, and will be widely disseminated.

Evaluation of Existing Guidelines: A search of MEDLINE, the National Guideline Clearinghouse, and the American Medical Association's Clinical Practice Guidelines Directory (1999) was performed. No relevant guidelines were located.

Literature Review: The literature review was performed by members of the guideline panel. All articles included met the following criteria:

- ?? Availability within the National Library of Medicine Medline inclusive of the years 1979-1998. Articles used included those published in the English literature dealing with human subjects. Key words used in the search included knee, knee joint, and knee injuries, which produced 1990 articles. Subheadings included diagnosis, radiography, and classification, which produced 173 articles.
- ?? The paper went through the peer review process
- ?? The paper provided a complete description of the materials and methods used
- ?? The conclusions of the paper were supported by the data presented within the paper
- ?? The topic of the paper was relevant to the recommendations developed in the guideline

Consensus Development: The guideline panel worked together in a series of meeting in which the information from the literature was used to develop a "decision tree". This information was supplemented by the consensus opinion of the panel when necessary. Bias was avoided by allowing individual panels members to challenge the consensus opinion. Multiple drafts were reviewed by members of participating societies who provided written comment. Modifications to the guidelines (when supported by references from the literature) were incorporated by the workgroup in a consensus manner.

Revision Plans: The guideline will be reviewed every five years.

Definition of Terms:

Musculoskeletal specialist: Any licensed medical doctor who has completed a resident training program focused on the management of musculoskeletal conditions, including but not limited to orthopaedists, physiatrists, and rheumatologists.

References:

General Physical Examination

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