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Information Statement

Use of Structured Communication Tools to Improve Surgical Patient Safety

This Information Statement was developed as an educational tool based on the opinion of the authors. It is not a product of a systematic review. Readers are encouraged to consider the information presented and reach their own conclusions.

Communication in surgical settings is the process by which important clinical and non-clinical information is sent and received among surgical patients, their families, members of surgical teams, departments and organizations necessary to provide optimal surgical care.[1]

Communication between surgeons and their patients is the critical factor in safety (accurate/timely diagnosis), quality (patient-centered care, shared decision making) and value. Surgeons' communication "styles" are critical in patients' perceptions of their treatment as reflected in CAHPS scores[2] as well as their willingness to adhere to recommended treatments. Surgeons' communication style, when abrupt or disrespectful, inhibits open communication and impairs competent teamwork.

Communication is both verbal and nonverbal; surgeons must be "mindful" that their nonverbal communication (posture, facial expression, vocal tone) is concordant with their words. For true patient centered care and shared decision making, surgeons must be willing to demonstrate empathy (recognizing and acknowledging patient's emotions) as well as adequately discussing patient concerns.[3]

Effective, structured communication is the lifeline of the surgical team's performance and is a crucial component in optimizing surgical patients' outcomes. For communication to be effective, the shared information must be accurate, complete, clear, brief, timely and verifiable/validated.[1] Communication in medicine and surgery is the key to the accurate "shared mental models" that define effective, safe surgical teams.

An analysis of Sentinel Event categories from The Joint Commission - unintended retention of a foreign body, wrong-patient, wrong-site or procedure surgery, operative/postoperative complications, delays in treatments- from 2010 through 2014 found that the most common root causes were communication, leadership, and human factors (staffing issues, fatigue, training, etc.).[4]

The American Academy of Orthopaedic Surgeons (AAOS) believes that regular use of structured communication systems, tools and techniques by surgeons and surgical teams is essential for safe surgical care.

The Agency for Healthcare Research and Quality has developed TeamSTEPPS (Strategies and Tools to Enhance Performance and Patient Safety) to increase surgical team competencies and improve surgical safety.[1] TeamSTEPPS is based on the aviation industry's crew resource management program and identifies four key skills - leadership, communication, situation monitoring, and mutual support – needed to improve team performance, knowledge and attitudes.

Structured information exchange tools and techniques from TeamSTEPPS have demonstrated value with a reduction of errors and improved surgical outcomes. These tools are incorporated into the "Safe Surgery Checklist".[5] Although recent literature casts some doubt on the efficacy of the checklist,[6] even more recent studies suggest that incomplete or inconsistent checklist usage may reduce efficacy.[7]

These tools and techniques should be used in all surgical settings and include:

- Surgical Team '**Brief**' – focused team discussion prior to surgery to assign roles, establish expectations and climate, and anticipate outcomes and likely contingencies

- Surgical Team '**Huddle**' – ad hoc team discussion to re-establish situation awareness, reinforce surgical plan, assess or adjust the surgical plan

- Surgical '**Time-out**' – focused, structured team confirmation of critical intended surgical plan, including identification of the patient, planned surgical site and procedure; and if appropriate, planned implant and spine level

- Surgical Team '**De-Brief**' – review of team performance following an episode of care designed to improve next/future episodes of care

- '**SBAR**' - **S**ituation-**B**ackground-**A**ssessment-**R**ecommendation – a technique used to relay critical patient-condition information requiring immediate attention and treatment recommendation
    - Situation—Brief and to-the-point explanation of what is happening with the patient
    - Background—Clinical background pertinent to the current situation
    - Assessment—Clinical impression of the patient
    - Recommendation—Suggestions of what action is to be taken

- '**Call-Out**' –surgical team member empowered to communicate important and timely information

- '**Check-Back**' or '**Read-Back**' – a closed-loop team information verification process – receiver and sender verifying message understood – confirmed by individuals or team

- **Hand-Off**' – team members transferring patients accurately across transitions of care, including questions for clarification and confirmation while transferring authority and responsibility. Lack of clarity about responsibility for care and decision-making is a major contributor to medical error. The Joint Commission National Patient Safety Goals require facilities to have a standardized approach to hand-offs, including the opportunity to ask and respond to questions.

    - '**I-PASS** the **BATON**' – a structured communication tool to enhance exchange of information during transitions of care

        - **I**ntroduction – personal introduction and role
        - **P**atient information – name, age, sex, location
        - **A**ssessment – chief complaint, vital signs, symptoms, diagnosis
        - **S**ituation – current condition, code status, recent changes and response to treatments
        - **S**afety Concerns –critical labs, allergies, socio-economic factors
        - **B**ackground – comorbidities, current medications, family history
        - **A**ctions – required actions and rationale
        - **T**iming – urgency and prioritization of actions
        - **O**wnership – responsible team members and family
        - **N**ext – plan, anticipated changes, contingencies

    Other validated 'Hand-Off' tools include:

    - **ANTIC**ipate (**A**dministrative data, **N**ew clinical information, **T**asks to be performed, **I**llness severity and **C**ontingency plans for changes)
    - ****IPASS** (**I**llness severity, **P**atient summary, **A**ction list for the new team, **S**ituation awareness contingency plans and **S**ynthesis and 'read-back' of the information)[8]
    - **SHARQ** (**S**ituation, **H**istory, **A**ssessment, **R**ecommendations/Result and **Q**uestions).

All these communication tools, when understood and used regularly by the surgical team, allow team members to collaborate, mutually support each other, and share a 'mental model' of care that improves both the safety and quality of the care provided.

The AAOS believes that effective surgical team communication and behaviors require surgeon leadership supported by surgical team education and training. Surgical team communication is an important learned, non-technical surgical skill that is essential for optimized surgical team performance in all surgical settings and helps provide safe surgical care.

References:

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