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Exploiting the Sound Bite: Using an emotive subject to add impetus to a safety initiative

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Summary:

- Wrong site neurosurgery is a major emotive issue for patient and relatives.

  This is a particular problem for the specialty which conducts less than 1% of the UK's operations, yet commits 88% if its side errors[1].

  Policy makers are sensitive to simple easily transmitted messages which front line professionals are inclined to see as reductivist, diverting effort from complex issues that have larger import.
- After putting in place in-house training and checks incidence vanished but then recurred.
- Despite funding shortages the nature of the problem gained high level support and funding at Strategic Health Authority level.
- An external training course with class and in-theatre coaching has resulted in sustained radical patient safety improvement.

Background: Establishing the Human Factor Problem:

- A neurosurgery unit was affected by a series of side errors that were recognised early with minimal adverse consequences.
- An in-house side checking system, was developed that substantially reduced the error rate but 18 months after its introduction a further error occurred despite all protocols being followed.
- The checking system was found to be sound, but had failed because of disjointed team working and a lack of knowledge and understanding of effective communication skills in such an environment.

Methods: Clinical Resource Management (CRM) Human Factor Training and Understanding

- An education program addressing broad safety issues of high priority to front line staff, as well as side checking: an intensive introductory phase where all theatre staff attended a 1 day course (table 1) followed by an on-going system of refresher modules, (2 senior clinicians did not attend class)
- Commitment at managerial and multidisciplinary team levels is vital
- Class sessions alone improve knowledge but little skill.
- Specific assertion training introduced.
- The training introduced specific practical tools and measures to be used consistently.
- Trainers intervened when they observed team and communications problems such as inappropriate hierarchy stifling open communication, and providing support to junior team members who find challenging authority figures difficult.

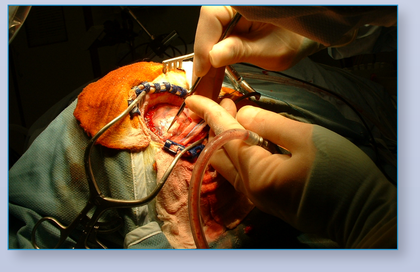


Table 1: Human Factors CRM Training Agenda

- Introduction to human factors
- Cognition fallibilities
- Adherence to rules under high stress and workload
- Self awareness
- Communications skills including assertiveness
- Leadership and team-working
- Situation awareness
- Decision making
- Use of checklists
- Briefing and debriefing

Figure 1: Falling side error rate with two interventions, to date (01/05/11)

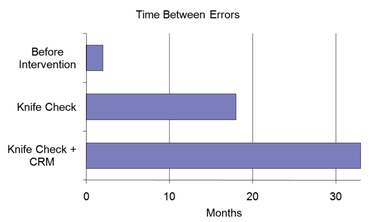
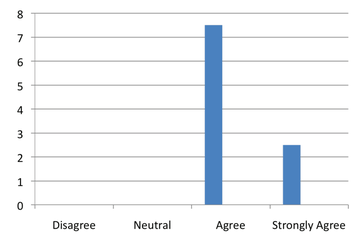


Figure 2: Post Training theatre team comments



Results : Developing Effective Briefing and Communications Skills

- The team were up-skilled to recognise threats, express their doubts politely and refuse to continue with surgical procedures until solutions were found and agreed.
- No further side errors have been recorded to date - over the 34 months since CRM training was introduced (figure 1).
- Feedback from staff who attended the introductory course was highly positive (figure 2).
- Full team briefings were introduced where all theatre staff are present and must contribute to a case discussion, rather than the traditional 'speech' by the surgeon and comments by anaesthetist and scrub nurse.
- The system spread beyond the neurosurgery department within the involved trust and beyond the trust to the surrounding region.

Conclusions: Cultural Change Leads to Great Improvements

- Front line professionals may be frustrated by organisational emphasis on sound-bite issues they see as low priority, but these are often symptomatic of cultural conditions that cause more complex and serious safety problems.
- A sound bite issue can be used as a catalyst for projects with a more general remit, including higher priority safety issues.
- Formal education is necessary but not sufficient for human factors training and error prevention.
- Shop floor coaching helps to instil a common language and understanding which form the backbone of workplace skill and behaviour enhancement.

References:

1. Liam Donaldson, C.M.O., On the State of Public Health: Annual report of the Chief Medical Officer 2007.2008
2. Mitchell, P., C.L. Nicholson, and A. Jenkins, Side errors in neurosurgery. Acta Neurochir (Wien), 2006. 148(12): p.1289-92; disucssion 1292.

Human Factors CRM Training & Implementation succeeds in reducing errors and should be required knowledge.