Side error

Side errors in neurosurgery can be reduced by a combination of systematic checking and education. Mitchell and Dale suspect that education is useful in reducing error rates from low to very low but, as is generally true of human factor interventions, the evidence for this is soft [1)]

The problem of an incorrect level or side in lumbar surgery remains unresolved. Irace et al. propose a useful and easily applied procedure to reduce such a risk. Larger studies comparing different methods of avoiding such errors will probably lead to the definition and wide adoption of a surgical behavior aiming to reach a near-zero error rate [2)].

Mitchell et al. previously reported on a series of side errors in cranial neurosurgery that occurred around the UK before the year 2006. That survey was prompted by a cluster of six cranial and spinal side errors that occurred in the neurosurgery department in Newcastle upon Tyne during the year 2006. The report was part of a investigation into the problem and how to solve it.

A human factors training programme was run in the department in response to a further side error. All 125 members of the neurosurgical theatre staff attended 1 of 5 training days. Fifteen days of professional observation and coaching were held within the theatre suite. Time between errors was recorded. The success or otherwise of human factors measures such as checking and briefing was observed.

A side checking system was adopted and became universal. Pre-list briefing meetings were adopted and quickly became widely used but took several years to become universal. Post-list debriefing meetings were introduced but were not widely adopted and quickly fell out of use. Mean time between side errors was 2 months pre-intervention, 18 months after introducing a standardised checking system and 82 error free months had passed since the human factors training programme.

Side errors in neurosurgery can be reduced by a combination of systematic checking and education [3)].

Mitchell et al suspect that education is useful in reducing error rates from low to very low but, as is generally true of human factor interventions, the evidence for this is soft [4)].

1)
Mitchell P, Dale T. Side errors in neurosurgery and human factors training. Acta Neurochir (Wien). 2015 Mar;157(3):487-91. doi: 10.1007/s00701-014-2326-z. Epub 2015 Jan 15. PMID: 25585835; PMCID: PMC4335125.
2)
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Mitchell P, Dale T. Side errors in neurosurgery and human factors training. Acta Neurochir (Wien). 2015 Jan 15. [Epub ahead of print] PubMed PMID: 25585835.