The Introduction Of New Technology For Treating Vascular Lesions May Lead To Unnecessary Adverse Events: Many Of These Can Be Avoided By Simulation And Team Training

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DISCLOSURES

- Hansen Medical: Consultancy, speakers fees, travel and conference fees
- Bolton Medical: Consultancy, speakers fees, travel and conference fees
- Medtronic: Speakers fees, travel and conference fees
- Gore: Travel and conference fees

AGGREGATED MARGINAL GAINS

Viewpoint: Should we all be looking for marginal gains?

The concept of marginal gain has revolutionised sports science. Can the same principles also change important areas of everyday life, such as healthcare?

LEAP STUDY: Errors by primary & subcategories

856 errors recorded by teams during 185 aortic procedures
Median 4 errors/procedure
Range 0-25
Median 1.2 errors/hour

DETERMINANTS OF ERROR RATE: multivariate analysis

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RELATIONSHIP BETWEEN ERROR AND OUTCOME

14 errors directly caused or clearly contributed to harm in 12 patients
6.5% of cohort
7 communication errors, 4 technical errors, 3 unanticipated problems relating to patient's anatomy

**p<0.01  *p<0.05

REDUCING HARM IN AORTIC SURGERY

- US Airways Flight 1549
- 155 passengers
- January 15, 2009
- Captain Chesley B. "Sully" Sullenberger and First Officer Jeffrey Skiles, made an unpowered emergency water landing in the Hudson River after multiple bird strikes caused both jet engines to fail.

IMMERSIVE SIMULATED ANGIOGRAPHY SUITE

IMPERIAL TEAM TRAINING

- Multidisciplinary in teams
- Structured
- Routine
- Emergency
- Reactive

KEY THEMES

- Error within this (endo) environment is frequent ...and leads directly to patient harm
- Leadership, communication and team working/training are key.
- Specific equipment familiarity vitally important
- Immersive, contextual training may help to avoid error related to the environment and equipment

...I propose given this evidence that team training should be a mandatory part of training, and of effective institutional governance.