Innovation in neurosurgery: Evaluation of neurosurgical innovation, related ethics, and solutions

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Stellingen

behorend bij het proefschrift getiteld

Innovation in Neurosurgery

Evaluation of neurosurgical innovation, related ethics, and solutions

door

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1. The WovenEndobrige (WEB) device has not been sufficiently evaluated to justify its use for wide-neck intracranial aneurysms (this thesis).
2. The introduction of many innovative neurosurgical procedures is unstructured and unethical (this thesis).
3. The IDEAL Framework is usable for neurosurgical innovation but requires extensive efforts for successful adherence (this thesis).
4. Fair valuation of neurosurgical innovation may aid the structural and ethical introduction of novel procedures (this thesis).
5. Education, promotion, and room for specialty-specific nuance within the IDEAL framework recommendations could improve its uptake and help guide neurosurgical development to produce a high-quality evidence base for our practice. Ota et al., *The IDEAL framework in neurosurgery: a bibliometric analysis.*, Acta Neurochir (2020). doi: 10.1007/s00701-020-04477-5
6. Agreeing on and implementing respected standard sets of outcomes for each medical condition is a practical and decisive step in accelerating value improvement in health care. Porter et al., *Standardizing Patient Outcomes Measurement*, N Engl J Med 2016; 374:504-506
7. The care-research distinction offers limited guidance for determining the adequate level of ethics regulations and oversight within an LHS. Wouters et al., *Learning health care systems: Highly needed but challenging*, Learn Health Sys. 2020;e10211.
8. After approval of medical devices, policymakers and regulators must stimulate post-marketing studies that correspond to the limitations of pre-approval studies, studies with a randomized design, improve the efficiency of RCTs, invest in data infrastructure, and creating new incentive and penalty mechanisms. Cipriani A. et al. *Generating comparative evidence on new drugs and devices after approval*, Lancet 2020 395:998-1010
9. Non nobis solum nati sumus (*Not for ourselves alone are we born - Cicero*). The ultimate goal of the medical sciences is the improvement of patient' outcomes, not the advancement of academic careers or financial gain of those involved.
10. Firm believers in progress should beware of hypes as they form a threat to patients' safety.