Conducting operational research to optimise new tools and approaches

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Needs for operational research

- Define place and value of new tools
  - capacity limitations: not everywhere same
  - differences between countries & within countries
  - yield: patients put on effective treatment / cured

- Study requirements and pitfalls
  - “peripherals”: supply system, quality assurance..
  - robustness and sources of error
  - cadre: strategies and algorithms
Advantages

• More feasible for countries and partners
  – low-budget
  – lower expertise requirements

• Ownership
  – good way of introducing a new technique
  – or early problem-solving

• Boosts job satisfaction
  – even without remuneration
Problems

• Conduct limitations
  – control lost more easily
    • low budget
    • field, maybe multi-centric
  – gold standard: i.e. culture??

• Credibility
  – can’t always be fully documented
Example: LED fluorescence microscopy

- First stage: proof of principle
  - evaluation in a SRL: not inferior to HBO
- Second stage: field application
  - performance under less ideal conditions
  - user acceptance
- Third stage: questions around application
  - best instrument?
  - best stains?
  - bulk preparation, shelf-life and distribution questions
  - EQA system?