



# 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?

