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"What gets measured, gets managed ": Analysis of Process-Quality-Indicators for Antimicrobial Stewardship

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Why is this relevant?

Problem:

Excessive, improper, uncritical **use** of antimicrobial

Consequence:

→ Occurrence of avoidable
 side effects
 → Increased costs
 > Increased costs

→ Increase in antimicrobial resistance

Intervention:

Implementation of effective antimicrobial stewardship (**AMS**)

Requirement:

The ability to **measure** the **prescribing quality** of AMS is critical for all

substances

Background:

- Quality indicators (QI) can be used to measure the quality of antimicrobial treatments
- The suitability of a QI must be proven in practical tests in the respective setting before the QI can be used
- -> Aim of study: Validation of 17 selected process QIs for prescribing antimicrobial agents at the University Hospital of Freiburg (UKF)

Methods:

Study setting:

- Number of cases: 426 patients at the UKF
- Inclusion of all patients > 18 years old who are taking at least 1 antiinfective on the day of the survey → Data collection using a point-prevalencestudy (PPS)

Process-Quality-Indicators (QI):

- Help to demonstrate the **effectiveness** of the interventions
- 17 evidence-based QIs
 → 3 categories: Therapy ①, Diagnostics ②, Documentation ③

Investigation of the following clinimetric properties:



Performance ($\leq 85\%$): % of **adherence** to an indicator \rightarrow enough room for <u>improvement</u> \rightarrow **Aim:** Qls $\geq 85\%$



Applicability (≥5%): **Proportion of all cases** examined to which the indicator could be **applied**



Feasibility (≥75%): % of available/valid values per indicator



Inter-Rater Reliability (>0,6): Evaluation of the reproducibility of the results between different observers



Take home message:

"The goal is to turn data into information and information into insight"^[2]



In this case:

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- Validation of process quality indicators for routine use at the UKF
- Show in which areas there is great potential for improvement
- Applicability of the QIs for UKF
 confirmed → QIs may also be
 usable for other hospitals

[1] Peter Drucker[2] Carly Fiorina; "Oracle Open World speech"

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