

## **Publication**

Outcomes of early switching from intravenous to oral antibiotics on medical wards

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**Author(s)** Mertz, Dominik; Koller, Michael; Haller, Patricia; Lampert, Markus L.; Plagge, Herbert; Hug, Balthasar; Koch, Gian; Battegay, Manuel; Flückiger, Ursula; Bassetti, Stefano

**Author(s) at UniBasel** Battegay, Manuel E.; Flückiger, Ursula M.; Hug, Balthasar; Bassetti, Stefano; Koller, Michael;

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OBJECTIVES: To evaluate outcomes following implementation of a checklist with criteria for switching from intravenous (iv) to oral antibiotics on unselected patients on two general medical wards. METH-ODS: During a 12 month intervention study, a printed checklist of criteria for switching on the third day of iv treatment was placed in the medical charts. The decision to switch was left to the discretion of the attending physician. Outcome parameters of a 4 month control phase before intervention were compared with the equivalent 4 month period during the intervention phase to control for seasonal confounding (before-after study; April to July of 2006 and 2007, respectively): 250 episodes (215 patients) during the intervention period were compared with the control group of 176 episodes (162 patients). The main outcome measure was the duration of iv therapy. Additionally, safety, adherence to the checklist, reasons against switching patients and antibiotic cost were analysed during the whole year of the intervention (n = 698 episodes). RESULTS: In 38% (246/646) of episodes of continued iv antibiotic therapy, patients met all criteria for switching to oral antibiotics on the third day, and 151/246 (61.4%) were switched. The number of days of iv antibiotic treatment were reduced by 19% (95% confidence interval 9%-29%, P = 0.001; 6.0-5.0 days in median) with no increase in complications. The main reasons against switching were persisting fever (41%, n = 187) and absence of clinical improvement (41%, n = 185). CONCLU-SIONS: On general medical wards, a checklist with bedside criteria for switching to oral antibiotics can shorten the duration of iv therapy without any negative effect on treatment outcome. The criteria were successfully applied to all patients on the wards, independently of the indication (empirical or directed treatment), the type of (presumed) infection, the underlying disease or the group of antibiotics being used.

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