

## Wie definiert man Medikationsfehler? Eine kritische Analyse der Literatur

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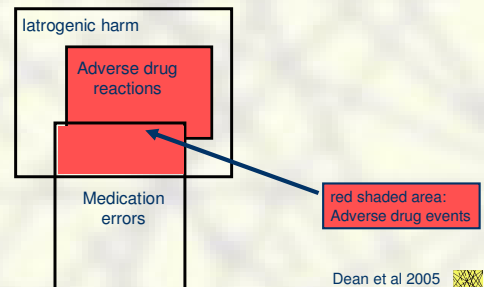
## Frequently used terms

- Medication error
- Medication incident / patient safety incident involving medicines
- Adverse drug reaction
- Adverse drug event
- Adverse event
- Inappropriate prescribing
- Drug related problem
- Non-compliance of patients

## Context/origin of terms

Term	Discipline/school of thought and main aim of research
Adverse drug reaction Adverse event	Pharmacoepidemiology/-vigilance, pharmacology/pharmacotherapy: To establish risk-benefit profile of individual drugs
Medication error/incident Adverse drug event	Error/patient safety research: To identify weaknesses in the drug use system (prescribing, administration...)
Inappropriate prescribing, drug related problems	Quality assurance/management: To identify areas to improve prescribing

## Terminology



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2. Explicit criteria of what is considered erroneous
3. Mix of explicit and implicit criteria

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... any error in the process of prescribing, dispensing, or administering a drug.

(Bates et al. 1995; Kaushal et al, 2001)

... an error occurring at any stage in the process of delivering a medication whether there are adverse consequences or not.

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Circular "an error is an error"

### A medication error is...

...any preventable event that may cause or lead to inappropriate medication use or patient harm, while the medication is in the control of the health care professional or consumer. Such events may be related to professional practice, health care products, procedures, and systems including prescribing; [...].

National Coordinating Council for Medication Error Reporting and Prevention (NCC MERP)

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### A clinically meaningful prescribing error...

... was defined as a prescribing decision or a prescription writing process that results in an unintentional, significant reduction in the probability of treatment being timely and effective or increase in the risk of harm, when compared with generally accepted practice. [...]

(Dean et al. 2000)

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Consensus definition

...Prescribing without taking into account the patient's clinical status, failure to communicate essential information, and transcription errors were all considered prescribing errors. Failure to adhere to standards such as national guidelines or the drug's product license were not considered errors if this reflected accepted practice.

### An intravenous drug administration error...

... was a deviation in preparation or administration of a drug from a doctor's prescription, the hospital's intravenous policy, or the manufacturer's instructions. The clinical appropriateness of the prescription was not assessed. [...] deviations from hospital procedures such as not checking name bands [...] were not considered erroneous if the correct drug was given to the patient.

(Taxis & Barber 2003)

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(Taxis & Barber 2003)

### Summary

- Definitions using implicit criteria:
  - Difficult to be used to establish medication error rates
  - Very careful review of methods to identify what was considered erroneous
  - Studies using the same definition may not be comparable
  - But processes of diverse nature may be included which may be missed using explicit criteria
- Definitions using explicit criteria:
  - Mostly refer to one step in the process, e.g. prescribing or administration errors

### Definitions of adverse drug reactions (ADR)...

- Some also include (some types of) medication errors
- In practice it is sometimes difficult to differentiate between ADR and medication errors
- Some ADRs may be medication errors in the future

## Conclusions

- There are many definitions of medication errors and few use explicit criteria – Standardisation is urgently needed
- Some studies do not provide sufficient detail about the definitions used to measure drug related harm/risks
- There is no agreement whether or not adverse drug reactions may include medication errors