

25. Assessment of Preventability of Adverse Drug Effects Detected in an Emergency Department

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Background: Detecting adverse drug effects (ADEs) in an emergency unit is particularly important in order to manage efficiently the patients admitted and avoid the recurrence of these ADEs.

Objective: To identify the factors associated with the preventability of medication-related admissions.

Methods: A prospective observational study was carried out in an emergency department from 2/1/2003 to 12/31/2004 in patients aged 18 years and over. ADEs first identified in the unit by the medical staff were then validated in the centre of pharmacovigilance. Cases of intentional overdose were excluded. From the age and sex of the patients, the clinical background, the drugs involved, their doses, the drug-drug interactions and eventually an over-the-counter administration, preventability was assessed.

Results: 253 patients were identified in the emergency unit as suffering from ADEs and were thus included; 56% were women and 65% were aged 65 years and over. The main clinical backgrounds were cardiovascular (60%) and neurological (26.5%). The medications most frequently involved were neuropsychological (39%) and cardiovascular drugs (27%). The number of drugs taken was 6.0 ± 3.4 ; 5.6% of the patients received over-the-counter drugs (essentially NSAIDs). The most often identified ADEs were ion disorders (26%), fall and faintness (21%), neuropsychological effects (20%), haemorrhage (16%). The most serious ADEs were induced by anticoagulants (7 out of the 8 deaths recorded). Drug interactions and overdoses were considered as preventable, in 30% of ADEs; the drugs involved were NSAIDs, diuretics and neuropsychological drugs.

Conclusion: Care should be taken to avoid as much as possible polymedication, overdose and over-the-counter drugs which are preventable factors of ADE occurrence. In the elderly specially the deterioration of the medical condition should be taken into account by health professionals in order to reduce the frequency and the severity of ADEs.