PHARMACEUTICAL CARE NETWORK EUROPE

Working Conference 2013 – Abstract

Collaborative pharmaceutical care in research and practice

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The above mentioned participant in the PCNE WC 2013 wishes to submit following abstract for a poster or oral communication. If accepted and presented, the abstract will be published in the International Journal of Clinical Pharmacy. Please make sure the abstract is no longer than 350 words, excl. author-details.

Title

Consequences of drug-related problems

Author(s)

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Type of abstract

■ Research ☐ Practice development ☐ Practice implementation

Aim of project/study

To map the consequences of drug-related problems (DPRs) based on a review of the literature. The study was for the Danish Community Pharmacy Evidence Database.

Method

Pubmed was searched May 2012 for literature reviews published Jan 2006 - May 2012 and newer epidemiological studies not included in relevant reviews. Grey literature was searched on Scandinavian healthcare webpages.

The identified literature had to describe the prevalence, incidence or costs of adverse drug events (ADEs) as manifestations of DRPs. Studies had to be conducted in primary care (incidence studies) or in hospital care with the aim of identifying admissions caused by DRPs (prevalence studies).

The incidence of ADEs, preventable ADEs (pADEs) and drug-related hospital admission (DRAs) were determined per 1000 person-months. The prevalence of DRAs was determined as the percentage of all admissions. The preventability rate was determined as the proportion of ADEs being preventable.

Result(s)

Twenty-five articles and one scientific report were included.
The incidence per 1000 person-months was for ADEs 18.5 [14.9-21.6], for preventable ADEs 4.2 [2.8-5.6] and for DRAs 0.45 [0.10-13.1]. In the elderly population, the incidence per 1000 person-months for ADEs was 27.0 [16.5-57.6] and for pADEs 6,9 [1.3-21.3].
The prevalence of DRAs was 6.4% [5.1%-33.2%] in the general population, 16.6% [10.7%-22.6%] in the elderly, and 2.8% [2.1%-4.1%] in children. The prevalence of pDRAs was 3.7% [2.6%-4.3%] in the general population and 5.6% [2.7%-8.2%] in the elderly.
The overall preventability rate of ADEs was 19% [17%-21%] and of DRAs 53% [20%-73%].
Important risk factors were multiple diagnosis or medications, impaired cognitive function and high age.
Primary care ADEs increased healtcare costs; estimated costs per ADE varied considerably due to methodological differences. Non-adherence increased healthcare costs 50% in diabetes and

dyslipidemia and 30% in hypertension.
The study shows that ADEs are frequent in primary care, and that weak elderly with chronic diseases are at particularly high risk.Almost halft of DRAs are avoidable with medicaton errors and insufficient implementation of prescribed therapy being frequent causes of such admissions. DRPs increase healthcare costs, but the societal costs need to be validated in cost-of-illness studies considering national healthcare settings.

+++ NB: PhD students still pay the early bird fee for their abstract if their abstract is accepted ++++