Patient characteristics among users of analgesic over-the-counter aspirin in a Danish pharmacy setting

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Introduction
Gastro-intestinal (GI) bleeding is a serious and potentially life-threatening situation, causing up to 3,000 annual admissions in Denmark (1). A potent risk factor for experiencing GI bleeding is the use of acetylsalicylic acid (ASA), which in Denmark is available over-the-counter (OTC). It is known that the gastric burden of ASA is dose-dependent and that high-dose ASA is a more potent risk factor for GI bleeding than most NSAIDs (2). Furthermore, the absolute risk is known to be modulated by the presence of other risk factors, such as concomitant use of steroids or having experienced previous bleeding episodes (3). However, as we currently have no knowledge on use patterns of OTC ASA or the prevalence of risk factors for GI bleeding among these patients, pharmacy personnel currently have little basis for focused patient counseling to ensure correct medicine use.

Aim
We aimed to assess patient characteristics, use patterns, knowledge of side effects and prevalence of risk factors for GI bleeding among users of OTC ASA.

Setting
The project was conducted at two Danish community pharmacies.

Method
Data were collected via interviews, directly at the pharmacy counter, or by phone. Users were recruited when buying any high-dose OTC ASA. Interviews were conducted using an electronic form containing a pre-defined questionnaire. Each eligible user were recorded with gender, choice and amount of ASA, and whether they agreed to participate or not. Among the participating users, information was gathered regarding 1) user characteristics (age, sex etc.); 2) knowledge on side effects; 3) prevalence of risk factors for GI bleeding and 4) reasons for using ASA. Data were analysed using descriptive statistics.

Results
212 eligible users were invited to participate and 96 (45%) agreed to participate. Most were female (78%) and the mean age was 55 (range, 18-87). The most common indications for use was headache (67%), muscle aches (29%) and migraine (22%). 18% used ASA on a daily basis and 32% used ASA more than once a week, while the remaining users used it more rarely. The side-effects best known by the users were stomach aches (known by 32% of the users), ulcer (23%) and dyspepsia (14%). Most users had their knowledge of side-effects from their friends (32%) followed by the pharmacy personnel (19%). 3% had this information from their primary physician. 38% experienced one or more side-effects related to dyspepsia. The prevalence of relevant co-morbidity and co-medication was generally low, although 8% had previously had an ulcer and 7% used NSAIDs. 10% used proton-pump inhibitors and 18% used other antacid drugs. 41 users (46%) reported that their primary physician knew they used ASA. Among these users, only 12% reported that their primary physician had recommended that they should replace ASA with another analgesic.

Conclusion
Our study shows that the users of OTC ASA has a very scarce knowledge of side-effects and that the primary physician, and to some extent the pharmacy personnel, have not met their responsibility to inform users about the appropriate conditions for the use of ASA. Furthermore, our study has shown that the general prevalence of risk factors among these users is low, except for age. Overall, this emphasizes the need for pharmacies to ensure differentiated patient-centred counseling. Obvious focus-points should be to identify the proportion of users that experience dyspepsia-related side effects (38% in our study) and those who previously had an ulcer. Furthermore, as age is the most dominant risk factor for getting an ulcer, attention should be focused on the elderly. This should include emphasizing the need for them to inform their primary physician about their use of ASA, offering alternative pain medication and, in case they continue the use of ASA, that they receive relevant prophylactic treatment.

References
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