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Practical Diabetes

Over-the-Counter Medicines and Diabetes Care

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Key Messages

- As agents often used by people with diabetes, health-care providers have devoted a lot of attention assessing the impact over-the-counter medicines have on blood sugar.
- This article looks at some of the more relevant ones. The evidence seems to suggest most do not alter blood sugar to any significant extent.
- More deserving of our attention is the safety of nonsteroidal anti-inflammatory drugs (NSAIDs), even at over-the-counter doses, within this group of patients.

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ABSTRACT

Objectives: People with diabetes turn to over-the-counter (OTC) medicines for many ailments. The focus of this brief review is the impact common OTC medicines might have on this group of patients.
Methods: Three types of OTC medicines were selected as most deserving of attention: 3 herbal agents, nonsteroidal anti-inflammatory drugs (NSAIDs) and cough/cold products. Existing literature was used to determine precautions that might be in order.
Results: Herbal/natural agents with the potential to impact blood sugar have been identified in various reports. In discussing 3, glucosamine and cinnamon (at doses recommended on commercial products) should have minimal impact on diabetic management, whereas St. John's wort is a concern involving potential drug interactions. For colds, of about 11 active ingredients, only decongestants (primarily oral) need be considered for their possible effects on blood sugar. Finally, NSAIDs (even at OTC doses) must be used with caution, given their cardiovascular, renal and gastrointestinal risks. Care guidelines do encourage patients to take ownership of their condition. Yet the ability to self-medicate safely is not a certainty. In spite of easy access and a reasonable level of safety, OTC medicines still can negatively impact a user. NSAIDs available without prescription continue to cause concern.
Conclusions: Before the use of any medicine, a person must ensure it will be safe. A health-care provider can be asked for assistance, but that option may not always be employed. Package information is there to provide critical information in lieu of that, something the self-medicating patient will, it is hoped, embrace.

Mots clés :
médicaments en vente libre
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MVL
AINS

RÉSUMÉ

Objectifs : Les personnes diabétiques se tournent vers les médicaments en vente libre (MVL) pour traiter de nombreuses affections. Cette brève étude porte principalement sur les répercussions fréquentes que peuvent avoir les MVL sur ce groupe de patients.
Méthodes : Trois types de MVL méritent que l'on s'y attarde plus particulièrement : 3 agents à base de plantes, les anti-inflammatoires non stéroïdiens (AINS) et les produits contre la toux et le rhume. Nous avons consulté la littérature actuelle pour déterminer les précautions à prendre.

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Résultats : Nous avons relevé dans divers rapports des agents à base de plantes et des produits naturels qui peuvent agir sur la glycémie. Nous traitons de questions relatives aux 3 produits suivants : la glucosamine et la cannelle (selon la posologie recommandée sur le produit) devraient avoir des effets minimes sur la prise en charge du diabète, tandis que le millepertuis suscite des inquiétudes en raison de ses possibles interactions médicamenteuses. En ce qui concerne les rhumes, parmi les 11 ingrédients actifs, seuls les décongestionnants (par voie orale principalement) doivent être pris en considération en raison de leurs effets possibles sur la glycémie. Finalement, les AINS (même selon la posologie des MVL) doivent être utilisés avec précaution, étant donné les risques qu'ils posent sur les plans cardiovasculaire, rénal et gastro-intestinal.

Les lignes directrices en matière de soins incitent les patients à prendre en charge leur état de santé. Néanmoins, la capacité de recourir de façon sûre à l'automédication n'est pas infaillible. En dépit de leur accessibilité facile et de leur niveau d'innocuité raisonnable, les MVL peuvent tout de même avoir des effets néfastes sur la santé des utilisateurs. Les AINS en vente libre continuent de susciter des inquiétudes. *Conclusions :* Avant l'utilisation d'un médicament, la personne doit s'assurer de son innocuité. Les utilisateurs peuvent consulter les prestataires de soins de santé pour obtenir de l'aide, mais n'y recourent pas toujours. Les renseignements qui figurent sur l'emballage sont destinés à fournir des informations importantes qui, espérons-le, seront comprises par le patient qui a recours à l'automédication.

Introduction

Minor ailments are a common part of life. Most of us can likely attest to having had dry skin, a sore back, some heartburn or a few days in the bathroom with stomach flu. For perspective, Canadian adults experienced an estimated 82 million headaches, 85 million colds or flu and 46 million episodes of indigestion during a recent year (1). Over a shorter timeframe (2 weeks), 41.3% of citizens in the United Kingdom complained of feeling tired or rundown, 38.7% had headaches and 31.2% experienced some joint pain (2).

The public often turn to over-the-counter (OTC) medicines for such situations. There were approximately 3000 OTC products available in Canada (circa 2012) for this purpose (3), with the majority being sold by pharmacies. This is big business. The self-care product industry generated $5.6 billion in sales in 2014 (4), and a few years earlier, OTC medicines/personal health supplies represented 16% of all drug expenditures in Canada (5). By category, some of the main areas have been analgesics ($530.0 million), vitamins ($356.6 million) cough/cold remedies ($218.8 million), allergy/sinus medications ($171.3 million), upset stomach remedies ($138.8 million), first aid ($110.5 million) and laxatives ($104.8 million) (6).

People with diabetes will undoubtedly be users of these products. In Australia, a survey found an average of 1.2 OTCs used within a 2-week period. Approximately 59% had used at least 1 agent and (uncovering some concern), about 41% had used a medicine that was deemed to be unsafe (7). Of 502 Canadians with diabetes, 44% were using OTC agents, and 31% were taking alternative medicines (8). The former figure would undoubtedly have been higher had all common OTCs (such as antihistamines, analgesics and laxatives) been included in the tally; the study focus, instead, was on vitamins and minerals. These subjects spent almost as much on OTCs ($9.98 per month) and alternative medicines ($13.55 per month) as they did on prescribed medications.

The focus of this review is the impact common OTC medicines might have on this group of patients.

Relevant Consumer Behaviour

In spite of easy access and a reasonable level of safety, OTCs can still impact users negatively (9). Nonsteroidal anti-inflammatory drugs (NSAIDs) available without prescription, in particular, continue to garner a lot of attention (10–13). Before the purchase of an NSAID, or any other medicine for that matter, people must ensure that it will be safe to use. A health-care provider can be asked for assistance, but that may not always be practical or in line with patients' perceived needs. Package information is there to provide critical information in lieu of that. In most countries, a medicine that cannot be taken safely and effectively via those directions (either on or in the package) is likely to remain prescription only. Accordingly, much interest has been shown in the readability of such information and the propensity of the public to read it. This includes concerns about literacy and numeracy skills.

Industry-based data indicated that 91% of Canadians claimed to read labels carefully before using a product for the first time (14), and they appeared to be satisfied with the information provided (15). A survey of 805 Canadians found that 88% followed the manufacturer's directions when last using an OTC (16). Among the 5% who were noncompliant with those directions, 31% took a dose larger than directed 19% took another dose sooner than directed, and 11% exceeded the maximum daily dosage. This was usually motivated by symptoms that were serious or a perceived lack of efficacy of the agent. Interestingly, 16% of noncompliers stated they were actually following directions from a health-care professional that had been given to them at a different time.

On the other hand, there have also been less positive results. Canadian government data found that 62% of participants stated that they always read labels, 16% often read them, 9% reported sometimes reading them, 6% seldom read them and 7% never read them (17). National consumer surveys in the United States and Canada have suggested that most, at the time of first purchase, do not read the full information provided (18,19). Only 40% of Canadians read about active ingredients when buying a product for the first time, followed by the dosage level (34%), the symptom it treats (26%), the possible side effects (23%), the directions for usage (18%) and the warnings (10%) (19).

Concern about the public's ability to self-medicate is real. In the United States, 334 of 1011 responders indicated they had taken more than the recommended dose of an OTC (20). Of that subset, 69% said this would manifest as taking more than the recommended number of pills at a single time, while 63% reported it could mean taking the next dose sooner than directed. The BeMedWise campaign in Canada found that 13% took 2 products simultaneously to treat the same symptoms (21). At 1 point, half of a sample could not name the active ingredient in the headache medication they used most often (19). In the United States, 66% could not do the same (20), although follow up in 2003 suggested that some improvement had occurred (22).

Internet sites for health- and medicine-related information are growing in importance. A keyword search of *health* in 2005 netted 473 000 000 hits (23). Many in health-care will undoubtedly question the Internet's value at times, but at least 1 review has suggested that, generally, it has had a positive impact on consumer