

## **Deprescribing Benzodiazepines and Sedative Hypnotics in Older Adults with Sleep Problems: Barriers from Physicians' Perspective**



Vladyslav Shapoval<sup>1</sup>, Marie de Saint Hubert<sup>2,3</sup>, Perrine Evrard<sup>1</sup>, Tokandji Adda<sup>1</sup>, Carole E. Aubert<sup>4,5</sup>, Vagioula Tsoutsi<sup>6</sup>, Pinelopi Kollia<sup>6</sup>, Antoni Salvà<sup>7</sup>, Ramon Miralles Basseda<sup>8</sup>, Adam Wichniak<sup>9,10</sup>, Katarzyna Gustavsson<sup>9,10</sup>, Torgeir Bruun Wyller <sup>11,12</sup>, Enrico Callegari<sup>11, 13</sup>, Jeremy Grimshaw<sup>14</sup>, Justin Presseau<sup>14</sup>, Séverine Henrard <sup>1,3</sup>, Anne Spinewine<sup>1,2</sup>

<sup>1</sup>Louvain Drug Research Institute, UCLouvain, Belgium; <sup>2</sup>CHU UCL Namur, Belgium; <sup>3</sup>Institute of Health and Society, UCLouvain, Belgium; <sup>4</sup>Department of General Internal Medicine, Inselspital, Bern University Hospital, University of Bern, Switzerland; <sup>5</sup>Institute of Primary Health Care (BIHAM), University of Bern, Switzerland; <sup>6</sup>Sleep Research Unit, First Department of Psychiatry, Eginition Hospital, Medical School, National & Kapodistrian University of Athens, Greece; <sup>7</sup>Fundació Salut i Envelliment Université autonome de Barcelone, Spain; <sup>8</sup>Hospital Germans Tries i Pujol, Spain; <sup>9</sup>Department of Clinical Neurology, Poland; <sup>10</sup>Third Department of Psychiatry, Institute of Psychiatry and Neurology, Poland; <sup>11</sup>Department of of Geriatric Medicine, Oslo University Hospital, Norway; <sup>12</sup>Institute of Clinical Medicine, University of Norway; <sup>13</sup>Department of Old Age Psychiatry, Østfold Hospital Trust, Norway; <sup>14</sup>Ottawa Hospital Research Institute, Canada.

### BACKGROUND

- The use of benzodiazepines and sedative-hypnotics (BSH) for sleep problems in older adults poses significant health risks such as falls, fractures, and cognitive impairment. Deprescribing is recommended but implementation in routine practice is limited.
- Assessing barriers is essential to guide the development and evaluation of a behavioral intervention. It is the first step of BE-SAFE, a 5-year project that aims to improve patient safety by addressing knowledge and practice gaps related to BSH deprescribing in Europe.

## **OBJECTIVES**

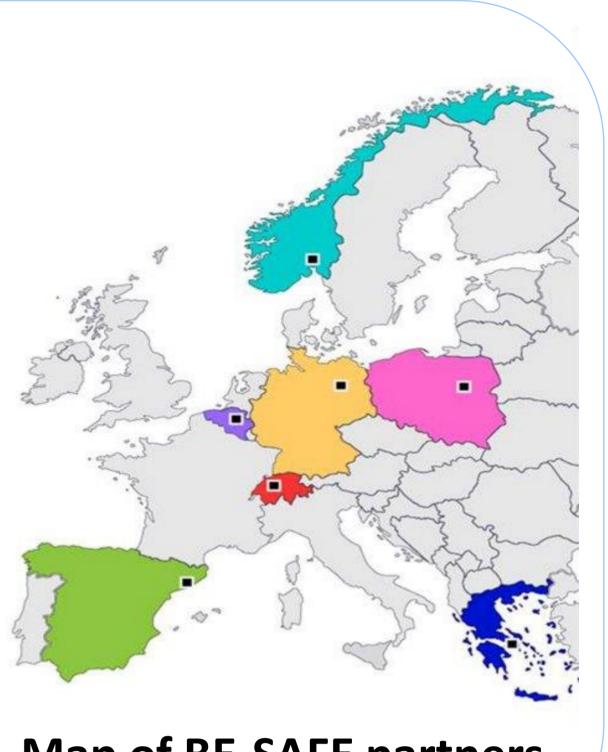
- To identify barriers to BSH deprescribing for physicians;
- To evaluate the association between 2) behavioural constructs and self-reported behaviour.

**Study design:** Multicentre, cross-sectional survey with hospital physicians and general practitioners (GPs) from six European countries participating in the BE-SAFE project.

## **METHOD**

The survey questionnaire comprised:

• 5 socio-demographic questions;



**Target behaviour:** Deprescribing BSH in older adults with sleep problems, initiated by a hospital physician and followed up by a GP.

**Analysis:** Means and standard deviations were calculated; reversed scoring was done for negative items. Three categories were defined: mean  $\geq$  4: enabler;  $3 \geq$  mean < 4: moderate barrier; mean < 3: major **barrier**. Multivariable logistic regression explored associations between Theoretical Domain Framework (TDF) domains and intention to deprescribe and self-reported routine BSH deprescribing.

- 35 items linked to 12 of the 14 domains of the TDF version 2. Items were measured on a **5-point Likert** scale ranging from "Strongly agree" to "Strongly disagree".
- 2 questions on self-reported behaviour (*i. 'Have you* deprescribed BSH before? ii. Do you discontinue BSH routinely?)
- 2 open questions on additional barriers and enablers.

The questionnaires were translated into six European languages.

**Map of BE-SAFE partners** 

# **A.** Participants

 Questionnaires were completed by • 240 hospital physicians (37 to 43 per country) and by 96 GPs (2 to 20 per country).

| RESULTS |  |
|---------|--|
|         |  |

- **B.** Barriers and enablers (Table 1 and QR code)
- Hospital physicians: Major barriers were found across six TDF domains (12 items): beliefs about capabilities, skills, goals, emotions, environmental context and resources, and social influence from
- **C.** Factors associated with hospital physicians':
- (odds ratio, 95% interval confidence)
- **1° Intention to deprescribe BSH:**
- Country: lower intention in Spain vs Belgium (0.24, 0.06 0.47).
- Specialty: higher intention in geriatricians vs internists (6.58, 2.37 – 19.11).

- Most hospital physicians were under 40 (53.3%), female (60%), and worked in internal medicine (40.8%), geriatrics (18.3%) and neurology (11.7%). 56.2% reported deprescribing BSH routinely.
- Most GPs were 40 and older (65.6%), and female (54.2%). 68.8% reported deprescribing BSH routinely.

**patients.** Only 2 items were classified as enablers (domains of knowledge and beliefs about consequences).

GPs: Results were similar to those of hospital physicians except for **social/professional** roles and identity (enabler) and goals (lower barrier, moderate). Scores on social influence from patients were even lower.

• TDF domains: social/professional role and identity (5.92, 3.28 -11.07); beliefs about consequences (3.00, 1.61 - 5.71); beliefs about capabilities (2.35, 1.55 - 3.63); memory, attention, and decision process (1.70, 1.22 - 2.40); reinforcement (1.49, 1.05 -2.15).

#### **2° Self-reported routine BSH deprescribing:**

TDF domains: intention (4.32, 2.38 – 8.83); memory, attention, and decision processing (2.79, 1.73 – 4.69); emotions (1.75, 1.04 - 3.04).

#### Table 1. Items rated as major barriers by hospital physicians and GPs

| <b>TDF-domains</b>  | Questionnaire items   | Hospital physicians | GPs          |
|---|---|---------------------|--------------|
|   |   | Mean (SD)           | Mean (SD)    |
| Skills  | I have been trained on how to discontinue BSH in older adults with sleep problems.  | 2.74 (1.21)         | 2.86 (1.26)  |
|   | I have been trained to engage patients about discontinuing their BSH.   | 2.67 (1.19)         | 2.60 (1.15)  |
|   | I have been trained to implement alternative approaches for sleep problems in older adults.                                       | 2.82 (1.21)         | 2.82 (1.19)  |
| Beliefs about capabilities I am confident that I can discontinue BSH in older adults with sleep problems even when I have limited time. |   | 2.83 (1.04)         | 2.74 (0.99)  |
| Goals   | My patients often have other health problems that are usually more important for me to address than the BSH discontinuation.      | 2.29* (0.96)        | 3.43* (0.92  |
| Emotions  | I feel frustrated with all the challenges of the discontinuation of BSH in older adults with sleep problems.                      | 2.87* (1.04)        | 2.56* (0.99  |
| Environment, context  | I have enough time to educate and inform patients about the discontinuation of BSH.   | 2.44 (1.06)         | 2.51 (1.19)  |
| and resources   | a) There is enough staff in the department or institution where I work to support the discontinuation of BSH.                     | 2.77 (1.11)         |              |
|   | b) In my practice, there are enough collaborators to support the discontinuation of BSH in older adults with sleep problems.      |                     | 2.33 (1.03)  |
|   | In my opinion, the discontinuation of BSH is not prioritised by our healthcare system.  | 2.69* (1.20)        | 3.09* (1.24  |
|   | a) In the department or institution where I work, we have set goals (or policies) that encourage the discontinuation of BSH.      | 2.69 (1.08)         |              |
|   | b) For general practitioners, in my area or my region, goals or policies have been set that encourage the discontinuation of BSH. |                     | 2.30 (1.17)  |
| Social influence  | I feel a lot of pressure from older adults with sleep problems and/or their relatives to renew/extend their prescriptions.        | 2.35* (0.92)        | 1.65* (0.68  |
| (patients)  | Most of my older patients taking a BSH for sleep problems or their relatives are reluctant to discontinue their BSH.              | 2.18* (0.82)        | 1.65* (0.62  |
|   | a) items asked hospital physicians only; b) items asked GPs only. *reversed mean so that lower scores r                           |                     | igher barrie |
| Detailed  | descriptive results on barriers to and enablers of BSH deprescribing: hospital physicians & GPs perspectives (a                   | all items)          |              |
|   |   |                     |              |
|   | lantified the main herriers to DCLL depreseribing. In addition, we defined the feature accessed with inter                        |                     | •            |

**CONCLUSION:** We identified the main barriers to BSH deprescribing. In addition, we defined the factors associated with intentions to deprescribe and selfreported BSH deprescription routinely. Our results will now inform the development of a theory-derived behaviour change intervention that will be tested in a cluster randomized controlled trial.

This work is part of the BE-SAFE project supported by the European Union's Horizon Europe research and innovation program under the grant agreement No 101057123, and by the Swiss State Secretariat for Education, Research and Innovation (SERI) (contract No 22.00116). **Contact: vladyslav.shapoval@uclouvain.be**