



Rideau Community  
Health Services

# Drugs and Seniors Municipal Drug Strategy Network Day

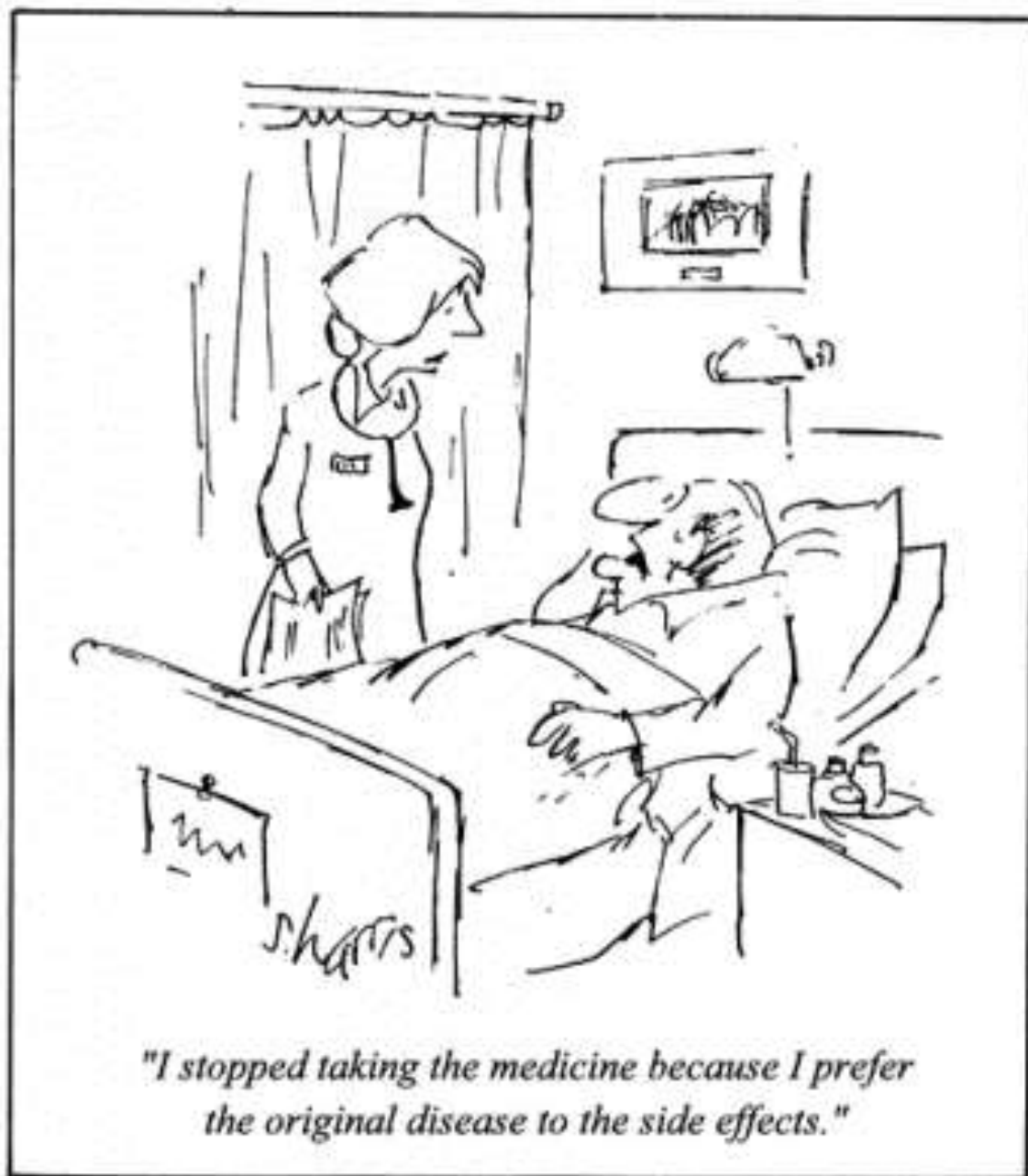


24 February 2017

Sara Rosaline Lavoratore BSc Phm ACPR CGP RPh

Primary Care Pharmacist

Rideau Community Health Services



*"I stopped taking the medicine because I prefer  
the original disease to the side effects."*

# Overview

- Practical medication safety tips for everyone
- The paradox in prescribing to the elderly
- Inappropriate prescribing in older adults
  - A focus on sleeping pills

# Helpful Tips

- Use one community pharmacy
- Bring a medication list with you!
  - Pharmacy print out doesn't cut it

## Medical Expense Report -Confidential

Canceled orders and orders that are still being processed are not included.

Report Date Range Jan 1, 2016 through May 2, 2016  
Created on: May 02, 2016

Dashboard3 Dtest  
6273 marguerite dr  
Newark, CA 94560



Date Filled/ Date Written	Prescription/ Store Number	Drug Name/ National Drug Code	Prescriber	Quantity/ Refill #	Days Supply	Dispense as Written	Patient Paid
02/08/2016	8803320/ 9062	Advanced Formula De Tab/ 41280020031	ABAD JOHN PHILAMER	30/1	30	0	\$999.76
02/08/2016	8803319/ 9062	Advanced Formula De Tab/ 41280020031	ABAD JOHN PHILAMER	30/1	30	0	\$999.76
02/08/2016	8803318/ 9062	Advanced Formula De Tab/ 41280020031	ABAD JOHN PHILAMER	30/1	30	0	\$999.76

\$2999.28

# Helpful Tips

- Ask about medication changes at each visit
- Record allergies and intolerances
  - Know reaction/intolerance experienced
- Lock up medications at home, especially narcotics, sedatives and hypnotics
- Return un-used medications to the pharmacy for safe disposal

# Helpful Tips

- Ask if over the counter medicine is safe for you
- Sharing medications, especially opioids, sedatives and hypnotics, can be deadly
- Know what “take as needed” or “take as directed” means

# 5 QUESTIONS TO ASK ABOUT YOUR MEDICATIONS

when you see your doctor, nurse, or pharmacist.

## 1. CHANGES?

Have any medications been added, stopped or changed, and why?

## 2. CONTINUE?

What medications do I need to keep taking, and why?

## 3. PROPER USE?

How do I take my medications, and for how long?

## 4. MONITOR?

How will I know if my medication is working, and what side effects do I watch for?

## 5. FOLLOW-UP?

Do I need any tests and when do I book my next visit?



Keep your medication record up to date.

### Remember to include:

- ✓ drug allergies
- ✓ vitamins and minerals
- ✓ herbal/natural products
- ✓ all medications including non-prescription products

Ask your doctor, nurse or pharmacist to review all your medications to see if any can be stopped or reduced.



Visit [safemedicationuse.ca](http://safemedicationuse.ca) for more information.

# Drugs and Seniors

THE GLOBE AND MAIL

AdChoices



A woman walks near the Caressant Care  
For The Globe and Mail  
**Woodstock nu**

Paola Loriggio  
Published Friday, Feb. 10, 2015  
Last updated Friday, Feb. 10, 2015

Inspection reports show an On  
admitting patients.

The recently released reports,

The records show 22 such inci  
one was medication administe

THE GLOBE AND MAIL

AdChoices



Dr. Rachel Morehouse, a psychiatrist and the medical director at Saint John Regional Hospital's Atlantic Sleep Centre in New Brunswick.  
for The Globe and Mail

## The dangers of sleeping pills for seniors

NANCY CARR  
Published Thursday, Aug. 20, 2015 05:00AM EDT  
Last updated Thursday, Aug. 20, 2015 10:48AM EDT

This is the second of a nine-part print and online series looking at the science of sleep and the vital role of sleep in maintaining overall health.

There's a reason no one ever wakes up after a restful night in bed and says: "I slept like a senior citizen."

As people age, their ability to get a good night's sleep becomes more elusive. And, to add insult to injury, those who might have reached for a sleeping pill to get through the night when they were younger are no longer good candidates for doing so after age 65 or 70.

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## For seniors, losing driver's licence like having 'arm cut off'

Next to young male drivers, people aged 70 or older have highest accident rate

By Janet Thomson, Marnie Anonaka and Kaitlyn Weatherles, CBC News Posted: Apr 17, 2013 5:47 AM ET Last Updated: Oct 02, 2013 9:41 AM ET



Fest and furious # 10

### REGIONS

- |                  |                         |
|------------------|-------------------------|
| British Columbia | Kitchener-Waterloo      |
| Kamloops         | Hamilton                |
| Calgary          | Toronto                 |
| Edmonton         | Ottawa                  |
| Saskatchewan     | Montreal                |
| Saskatoon        | New Brunswick           |
| Manitoba         | Prince Edward Island    |
| Thunder Bay      | Nova Scotia             |
| Sudbury          | Newfoundland & Labrador |
| Windsor          | North                   |

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# Paradox in prescribing for the elderly

- Seniors (65+) comprise 15% of the population, and consume nearly a third of all drugs
- Aging impairs the way the body handles drugs



# Paradox in prescribing for the elderly

- Aging impairs the way the body handles drugs



# Paradox in prescribing for the elderly

- Elderly are commonly under represented in clinical trials.
- “Old” patients in clinical trials tend to be in their early 60s and in quite good health.
- “Old old” are a messy lot for clinical trials
  - More likely to be taking interacting drugs
  - More likely to have multiple medical problems
  - More likely to die or suffer serious adverse effect

# Inappropriate prescribing



Institute for Safe Medication Practices Canada

A Key Partner in the Canadian Medication Incident Reporting and Prevention System (CMIRPS)

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## Safer Medication Use in Older Persons Information Page

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### Potentially Harmful Medications

As a result of potential adverse effects due to pharmacokinetic and pharmacodynamic changes in older people, certain medications should be avoided, or used cautiously with monitoring. This site provides information about the "Beers List"<sup>1</sup> and other drugs which are potentially harmful when used inappropriately. If used, documentation should note the reason for use and show that monitoring is in place.

The information provided is intended for practitioners caring for the older person in all settings.

#### About the "Beers List"

- What is the "Beers List"?
- What drugs are included?
- How widespread is the problem?
- What are the alternatives to using these medications?

#### About Other Potentially Harmful Medications in Older Persons

- High Alert Medications
- Drugs with Anticholinergic Properties
- General Information about Drug Use in Older Persons

#### Drug-Drug Interactions

- Drug-Drug Interactions in the Geriatric Population — Summary of Selected Pharmacoepidemiological Studies in Ontario

Additional Articles of Interest

This is a real problem!

# Inappropriate prescriptions

CMAJ OPEN

Research

Research

## **Frequency and cost of potentially inappropriate prescribing for older adults: a cross-sectional study**

Steven G. Morgan PhD, Jordan Hunt MA, Jocelyn Rioux BSc, Jeffery Proulx BSc, Deirdre Weymann MA, Cara Tannenbaum MD MSc

# Inappropriate prescriptions

CMAJ OPEN

Research

**Table 1: Proportion of provincial drug plan enrollees aged 65 years or more who filled 1 or more potentially inappropriate prescription\* in 2013, by province, sex and age group**

Province	Population (%) aged ≥ 65 yr covered by NPDUIS database	Age, yr; no. (%) of enrollees								Overall
		Women				Men				
		65–74	75–84	≥ 85	All ages	65–74	75–84	≥ 85	All ages	
British Columbia	769 993 (89.0)	89 636 (41.5)	57 288 (44.6)	34 735 (50.1)	181 659 (43.9)	58 678 (28.8)	39 299 (34.5)	16 049 (41.2)	114 026 (32.0)	295 685 (38.4)
Alberta	411 322 (91.7)	54 514 (46.5)	34 388 (47.6)	16 304 (47.0)	105 206 (46.9)	33 675 (31.5)	21 163 (35.0)	7 267 (37.0)	62 105 (33.2)	167 311 (40.7)
Saskatchewan	149 505 (93.5)	14 672 (39.4)	11 764 (42.8)	8 762 (46.9)	35 198 (42.2)	9 455 (27.0)	7 166 (32.5)	3 246 (35.9)	19 867 (30.1)	55 065 (36.8)
Manitoba	171 195 (93.8)	19 942 (43.3)	13 606 (44.8)	9 209 (46.3)	42 757 (44.4)	12 905 (30.8)	8 353 (35.0)	3 501 (38.1)	24 759 (33.0)	67 516 (39.4)
Ontario	1 971 856 (95.9)	200 391 (36.7)	152 241 (43.0)	89 780 (46.1)	442 412 (40.4)	128 933 (26.2)	96 492 (33.8)	39 125 (38.9)	264 550 (30.2)	706 962 (35.8)
New Brunswick	73 482 (55.2)	10 650 (55.3)	8 238 (57.3)	5 969 (61.0)	24 857 (57.2)	6 591 (40.6)	4 689 (44.6)	1 690 (50.9)	12 970 (43.1)	37 827 (51.5)
Nova Scotia	112 780 (67.5)	15 000 (47.0)	10 303 (49.0)	6 559 (49.7)	31 862 (48.2)	10 039 (37.3)	6 539 (42.8)	2 013 (45.3)	18 591 (39.9)	50 453 (44.7)
Prince Edward Island	23 051 (91.8)	2 208 (33.6)	1 393 (34.6)	784 (36.8)	4 385 (34.5)	1 324 (21.5)	813 (25.0)	199 (21.9)	2 336 (22.6)	6 721 (29.2)
Newfoundland and Labrador	49 310 (54.9)	7 658 (56.0)	5 787 (58.0)	3 153 (60.1)	16 598 (57.4)	5 383 (48.5)	3 762 (51.8)	1 097 (53.5)	10 242 (50.2)	26 840 (54.4)
All high-data-coverage provinces†	3 496 922 (92.6)	381 363 (39.4)	270 680 (43.9)	159 574 (47.0)	811 617 (42.2)	244 970 (27.7)	173 286 (34.1)	69 387 (38.9)	487 643 (31.0)	1 299 260 (37.2)

Note: NPDUIS = National Prescription Drug Utilization Information System.

\*All prescriptions meeting the Beers Criteria based on drug, dosage and duration.<sup>1</sup>

†Provinces in which at least 85% of the population aged 65 years or more is covered by the NPDUIS database: British Columbia, Alberta, Saskatchewan, Manitoba, Ontario and Prince Edward Island.

# Inappropriate prescriptions

**Table 3: Proportion of enrollees who filled 1 or more potentially inappropriate prescription for the 20 most frequently used drugs on the Beers list and estimated average per-capita cost, by sex**

Drug	% of enrollees who filled $\geq 1$ potentially inappropriate prescription			Estimated average per-capita cost of potentially inappropriate prescriptions, \$		
	Women	Men	Overall	Women	Men	Overall
Lorazepam	11.0	6.1	8.8	6.95	3.46	5.40
Nitroglycerin	8.3	1.9	3.3	3.23	0.73	2.13
Amitriptyline	3.9	2.0	3.1	4.12	1.85	3.11
Quetiapine	2.8	2.2	2.5	8.24	5.95	7.22
Clonazepam	3.0	1.9	2.5	3.02	1.82	2.49
Zopiclone	2.9	1.9	2.4	5.25	3.50	4.47
Conjugated estrogens	4.2	0.0	2.4	3.71	–	2.06
Glibenclamide	1.7	2.7	2.2	1.80	2.52	2.12
Indomethacin	0.7	2.6	1.6	0.30	1.09	0.65
Terazosin	0.4	2.9	1.5	0.82	5.04	2.70
Oxazepam	1.8	1.1	1.5	1.61	0.84	1.27
Risperidone	1.6	1.1	1.4	5.48	3.64	4.66
Estradiol	2.6	0.0	1.4	5.95	–	3.31
Temazepam	1.6	1.2	1.4	1.41	0.96	1.21
Metoclopramide	1.3	1.0	1.2	0.65	0.45	0.56
Amiodarone	0.7	1.1	0.9	1.41	2.26	1.79
Meloxicam	1.1	0.6	0.9	1.65	0.93	1.33
Cyclobenzaprine	1.0	0.9	0.9	0.54	0.40	0.48
Diclofenac, combinations	0.8	0.8	0.8	3.98	3.59	3.80
Alprazolam	1.1	0.6	0.8	0.96	0.49	0.75

Most common inappropriate medication was lorazepam.



# The problem with benzodiazepines



If you're worried about taking so many tablets I could  
prescribe you some valium...



# The problem with benzodiazepines

- Mr. AB (76 years of age) comes to see his provider.
- His wife recently passed away, and he can't sleep at night.
- He has anxiety, racing thoughts, and tremendous sadness.
- A sedative-hypnotic, lorazepam, is prescribed.
- He is counseled about the risks, but it is unlikely he takes much of this in.
- A month later, he is back asking for more pills.

The waiting room is packed

Only have 10 min appointment booked

# Pop culture love benzos



Eminem; **My Mom**

“My mom loves valium and lots of drugs  
That’s why I am like I am ‘cause I’m like her  
Because my mom loved valium and lots of drugs  
That’s why I’m on what I’m on ‘cause I’m my mom”

Salt-N-Pepa; **Santa Baby**

“Slip a benzo under the tree for me  
A 98 convertible, light blue ”

# A bit about benzodiazepines

- Large group of drugs. . .
  - Lorazepam (Ativan<sup>®</sup>), diazepam (Valium<sup>®</sup>), clonazepam
- Multiple approved and off label uses
  - Sleep disorders, seizure disorders, anxiety, alcohol withdrawal, muscle relaxant, etc.
- Rapid efficacy (within minutes)
- Withdrawal appears to be very difficult
  - Difficult to ascertain reappearance of anxiety or withdrawal symptoms

# The problem with benzodiazepines

Journal List > BMJ > v.349; 2014 > PMC4159609



[BMJ](#). 2014; 349: g5205.

PMCID: PMC4159609

Published online 2014 Sep 9. doi: [10.1136/bmj.g5205](https://doi.org/10.1136/bmj.g5205)

## Benzodiazepine use and risk of Alzheimer's disease: case-control study

[Sophie Billioti de Gage](#), PhD student,<sup>1</sup> [Yola Moride](#), professor,<sup>2,3</sup> [Thierry Ducruet](#), researcher,<sup>2</sup> [Tobias Kurth](#), director of research,<sup>4,5</sup> [Hélène Verdoux](#), professor,<sup>1,6</sup> [Marie Tournier](#), associate professor,<sup>1,6</sup> [Antoine Pariente](#), associate professor,<sup>1</sup> and [Bernard Bégaud](#), professor<sup>1</sup>

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# The problem with benzodiazepines

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JUN 11 2015, 4:56 PM ET

## Sleeping Pill Use Raises Car Crash Risk, Study Finds

by MAGGIE FOX

Some sleeping pills may raise the risk of car crashes.  Getty Images stock

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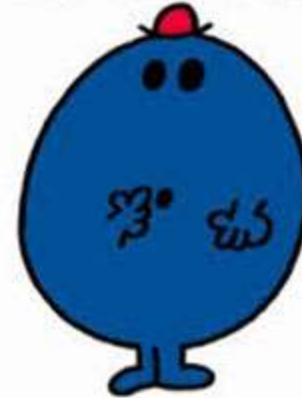
Sleeping pills such as Ambien and Restoril may double someone's risk of a car crash — even after their effects should have worn off — and may raise the risk

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# The problem with benzodiazepines



**MR. FORGETFUL**



# Managing Insomnia & Benzodiazepines

- Cognitive behavioural therapy targeted at insomnia is effective.
  - Do not assume that older people cannot engage in therapy.
- Work with your doctor and pharmacist to help taper off benzodiazepines.
  - No matter how rushed health care providers may seem, it is in everyone's best interest to find healthier ways to deal with insomnia.

# Healthy Sleep Hygiene

BEFORE BEDTIME



Avoid caffeine, nicotine and alcohol before bedtime



Avoid heavy meals within two hours of bedtime



Avoid energetic exercise within three hours of bedtime

GETTING READY TO SLEEP



Develop a bedtime ritual so that your body knows you are getting ready to go to sleep



Reduce extreme light, temperature, and noise in your bedroom



Include an hour of quiet time before bed such as reading, watching TV or listening to music

SLEEP TIME



Keep your sleep regular – same bedtime, same rise time. Aim for 8 hours of sleep each night.



Bedrooms are **ONLY** for sleep and sex  
*How many screens do you have in your bedroom?*



If you can't sleep after 20 minutes, get up and do something boring until you feel tired, then try again.

Remember everyone has nights where they can't sleep.  
The more you worry, the worse this worry can become.  
If you are concerned about your sleep contact your family doctor.



Sleep Disordered Breathing Unit  
Respiratory Services





# Questions?



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