

ASPIRIN MISUSE AT HOME ACCORDING TO START AND STOPP IN FRAIL OLDER PERSONS

- O. Dalleur ^{1,4}, B. Boland ^{2,3}, A. Spinewine ⁴⁻⁵
- 1 Pharmacy and 2 Geriatric Medicine, St-Luc university Hospital,
- 3 Institute of Health and Society, 4 Louvain Drug Research Institute, 5 CHU Mont-Godinne;
- UCLouvain, Belgium
- **EUGMS 2012**
- Brussels 28/09/2012

1



INTRODUCTION

- Inappropriate prescribing in geriatric patients:



Tools to detect inappropriate prescription in elderly :
Beers, IPET, Laroche, & STOPP-START ,...



INTRODUCTION

International Journal of Clinical Pharmacology and Therapeutics, Vol. 46 – No. 2/2008 (72-83)



STOPP (Screening Tool of Older Person's Prescriptions) and START (Screening Tool to Alert doctors to Right Treatment). Consensus validation

P. Gallagher¹, C. Ryan², S. Byrne², J. Kennedy² and D. O'Mahony³

- European, 2008
- Consensus opinion of a panel of experts in geriatric medicine, clinical pharmacology, psychiatry of old age, pharmacy and general practice
- **STOPP** : 65 situations « at risk » linked with 29 drugs
- **START** : 22 situations « at risk » linked with 15 drugs

STOPP (Screening Tool of Older Person's Prescriptions) and START (Screening Tool to Alert doctors to Right Treatment). Consensus validation
International Journal of Clinical Pharmacology and Therapeutics, Vol. 46 – No. 2/2008 (72-83)
Screening Tool of Older Persons' Potentially inappropriate Prescriptions *Age and Ageing* 2008; 37: 673–9



ASPIRIN IN STOPP

STOPP : 6/65 Cardiovascular system

1. in combination with **warfarin** without anti-H2 or PPI.
2. with a past history of **peptic ulcer** disease without anti-H2 or PPI.
3. dose > **150** mg/day
4. with **no history** of coronary, cerebral or peripheral vascular symptoms or occlusive event.
5. to treat **dizziness** not clearly attributable to cerebrovascular disease.
6. with concurrent **bleeding** disorder.



ASPIRIN IN START

START : 3/22

Cardiovascular system

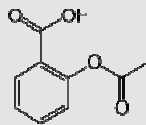
1. **chronic atrial fibrillation**, where warfarin is contraindicated, but not aspirin.
2. with a documented **history** of atherosclerotic coronary, cerebral or peripheral vascular disease in patients with sinus rhythm.

Endocrine system

3. **diabetes** mellitus with coexisting major cardiovascular risk factors (hypertension, hypercholesterolemia, smoking history).

WHAT ABOUT ASPIRIN USE?

- Aspirin



Our patients

in 1930



PURPOSE

The aim of this study is

to describe aspirin misuse
and related hospital admissions
according to START and STOPP criteria
in frail older patients

METHODS

- ▶ Design: cross-sectional study in a teaching hospital in Brussels
- ▶ Eligibility:
 - age \geq 75 years
 - acute hospital admission (not in a geriatric unit) in 2008
 - frailty score ISAR \geq 2/6
 - CGA by the geriatric liaison team
- ▶ Data collection
 - **geriatric** : social, functional/cognitive status, nutritional
 - **medical** :
 - detailed medical history/comorbidities (including GFR)
 - drug list at home
 - main reason for admission

METHODS

- End points

- **Inappropriate prescribing events (IP) related to aspirin** at home (according to STOPP&START)

- IP detection by a clinical pharmacist and a geriatrician ; using the list of drugs taken at home and comorbidities.

- Sub-analysis of the IP related to aspirin.

- **Hospital admissions** related to inappropriate prescribing of aspirin

- Determination of relation between hospital admission and IP based on clinical judgement.

RESULTS

POPULATION CHARACTERISTICS

302 frail older people

Age 84 years \pm 5; ♀ 63 %

ISAR score : 2 - 6 / 6 ; average 3,5 \pm 1

134 prescriptions of aspirin/302 = 44%



Geriatric Syndromes

- falls (58 %),
- malnutrition (30 %),
- cognitive decline (25%),
- depression (25 %)



Co-morbidities

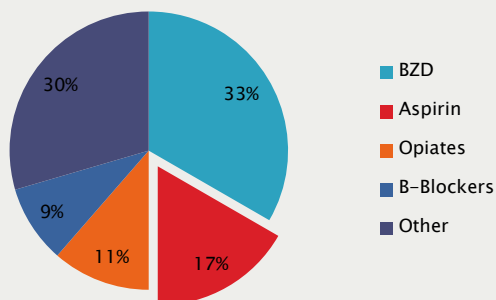
- **hypertension (55 %),**
- **ischemic CV diseases (40 %),**
- osteoporosis (26 %),
- **atrial fibrillation (25%),**
- **diabetes (23 %),**
- COPD (15 %)

DRUGS BEFORE ADMISSION

Drugs:
 6 ± 3 drugs/patient
 ≥ 5 drugs/day : 75 %

210 STOPP-IP events
 in 144 patients (144/302) : **48 %**

Aspirin STOPP-IP events :
 35/210 (17%)
Prevalence in patients = 12%



See Poster P294

ASPIRIN MISUSE

Over-use of aspirin (STOPP-IP) :

Criteria	N (%)
> 150 mg/day	25 (71%)*
with no history of coronary, cerebral or peripheral vascular symptoms or occlusive event	7 (20%)
past history of peptic ulcer disease without gastric protection	2
combination with warfarin without gastric protection	1
to treat dizziness not clearly attributable to cerebrovascular disease	1

*aspirin 160mg frequently prescribed in B

HOSPITAL ADMISSIONS

- 82 of the 302 hospital admissions (27 %) related to IP
 - STOPP-IP n=54
 - START-IP n=38
 - Both present = 10 cases

Aspirin misuse may have contributed in 8/82 (10%)

2 admissions for **hemorrhagic** problems

→ aspirin overuse according to STOPP

6 admissions for **myocardial infarction**

→ aspirin underuse according to START (these patients required secondary cardiovascular prevention)

NB : relative reduction of risk for CV events with aspirin in high risk patient ~ 25%

[BMJ](#). 2002 Jan 12;324(7329):71-86.

Collaborative meta-analysis of randomised trials of antiplatelet therapy for prevention of death, myocardial infarction, and stroke in high risk patients. [Antithrombotic Trialists' Collaboration](#).



CONCLUSIONS

1. Aspirin = most frequent Inappropriate Prescribing event :

- STOPP-IP : prevalence = 12%

→ Primary prevention : **STOP**

- START-IP : prevalence = 25%

→ Secondary prevention
→ Diabetes (with CV risk factor) } **START**

2. 1 acute hospital admission/4 was related to IP events

- **1/10** in patient with aspirin misuse



CONCLUSIONS

⇒ Appropriate use of this old molecule
is still a challenge in old patients.

⇒ Clinicians should remember
when to consider aspirin and when to avoid it
in frail older patients
in order to prevent hospital admissions.



olivia.dalleur@uclouvain.be



ISAR IDENTIFICATION OF SENIORS AT RISK

- Six self-report questions
 - on functional dependence
premorbid and acute change
 - recent hospitalization
 - impaired memory
 - impaired and vision
 - poly medication.