



**SIP**

Societal Impact of Pain

# San Marino Analgesic Observatory

**Results and perspectives**

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**I, Daniele Battelli DO NOT have a financial interest/arrangement or affiliation with one or more organizations that could be perceived as a real or apparent conflict of interest in the context of the subject of this presentation.**

# Data Collection

- Prescription and distribution of **ATCs A02\***, **M01\***, **N02\*** (Analgesics and Gastric protection drugs) (DDDs/1.000 inhab. / Year) – year 2007
- Endoscopy suggestive for NSAID-related findings
- Serum creatinine values
- Global population (N° 31'198 residents of wich 26'587 adults above 14 y.o. )

# Whole Population

<b>Drug</b>	<b>DD Dx1000 in.</b>
Ketoprofen	10,391
Nimesulide	7,258
Morniflumate	3,654
Diclofenac	2,530
Aceclofenac	2,181
Piroxicam	1,896
Naproxen	1,811
Meloxicam	1,426
Flurbiprofen	1,106
Ketorolac	0,745
Tramadol	0,466
Morphine	0,027
Others	1,21
<b>Total</b>	<b>35,739</b>

- NSAIDS at the top 10
- High preference for organ-damaging drugs

**WHAT ARE WE CHOOSING?**

# Elderly (>65 yo)

<b>Drug</b>	<b>DDx1000 in.</b>
Ketoprofen	15,758
Nimesulide	12,738
Diclofenac	7,898
Aceclofenac	7,436
Piroxicam	4,976
Meloxicam	4,276
Tramadol	3,977
Naproxen	2,844
Ketorolac	2,187
Morniflumate	1,953
Flurbiprofen	0,712
Buprenorphine	0,696
Fentanyl	0,657
Morphine	0,08
Others	1,555
<b>Total</b>	<b>68,497</b>

- NSAIDs still at the top
- High preference for organ-damaging drugs

**WHAT ARE WE CHOOSING?**

# NSAIDs vs. PPI

<b>Drug</b>	<b>DDDx1000 in.</b>
<i>Pantoprazole</i>	147,05
<i>Omeprazole</i>	57,01
<i>Misoprostol</i>	43,77
<i>Esomeprazole</i>	24,66
<i>Ranitidine</i>	22,75
<i>Lansoprazole</i>	19,56
<i>Rabeprazole</i>	1,51
<i>Sucralfate</i>	0,48
<i>Famotidine</i>	0,19
<b>Total</b>	<b>317,02</b>

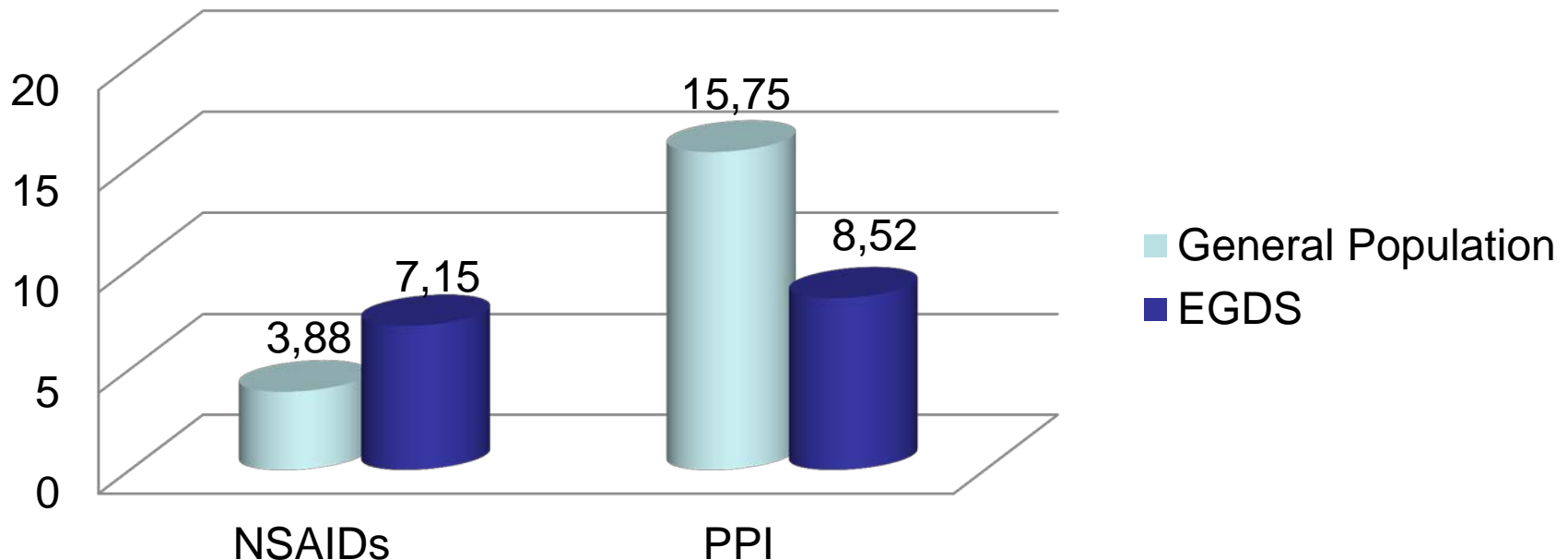
## ENDOSCOPY FINDINGS:

- **59 events related to NSAIDs**  
(1 : 510 inhab. / year)
- **14 ulcer bleedings**  
(1 : 2'150 inhab. / year)
- **62,7% either on anticoagulant or chronic analgesic**

**WHAT ARE WE TREATING?**

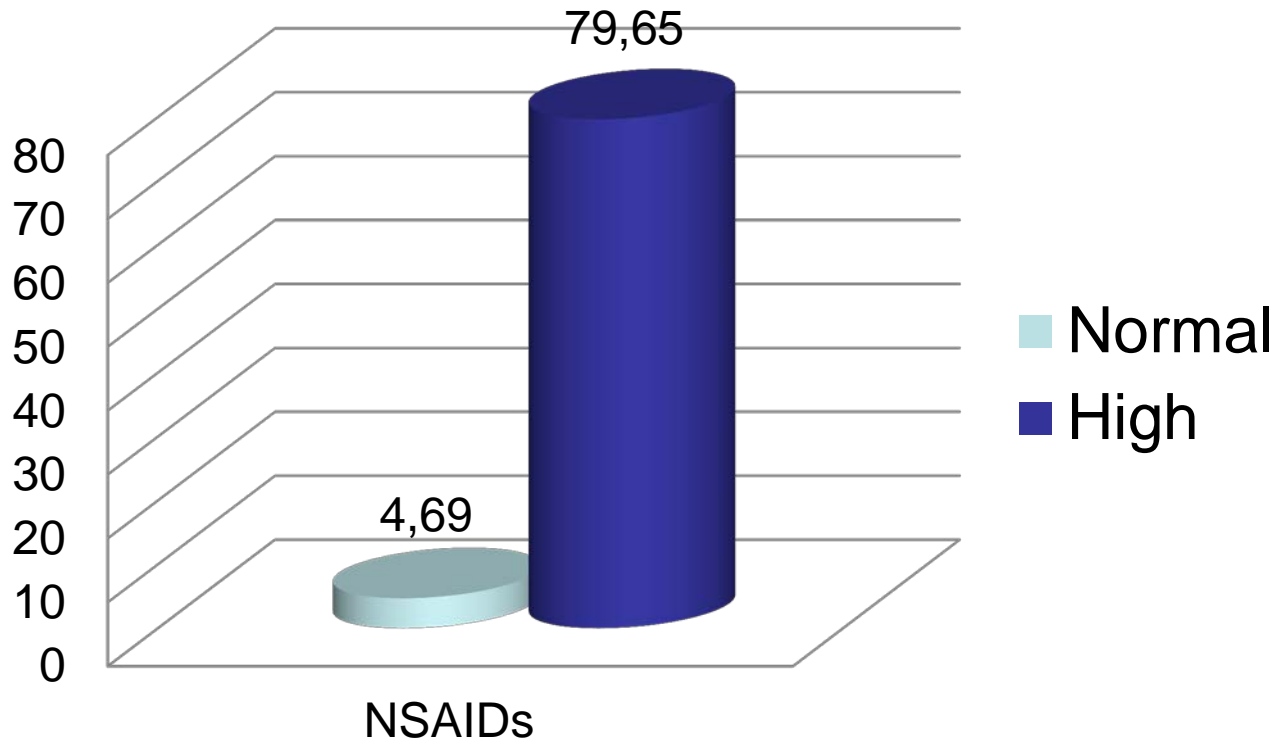
# And finally...

- **PPI usage** in positive endoscopies **is lower** than general population (DDD/1'000 inh./year)
- **NSAIDs usage** in positive endoscopies **is higher** than general population (DDD/1'000 inh./year)



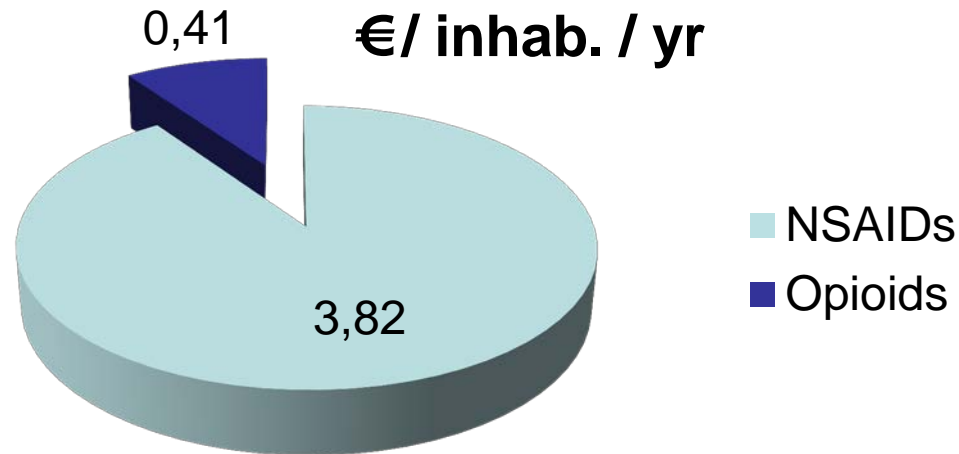
# And finally...

- **NSAIDs usage** in people with high serum creatinine (>1,2 mg/dL) **is higher** than general population (DDD/1'000 inh./year)





# Costs for prescription



➤ **Analgesic drugs** (population > 14 yo) :

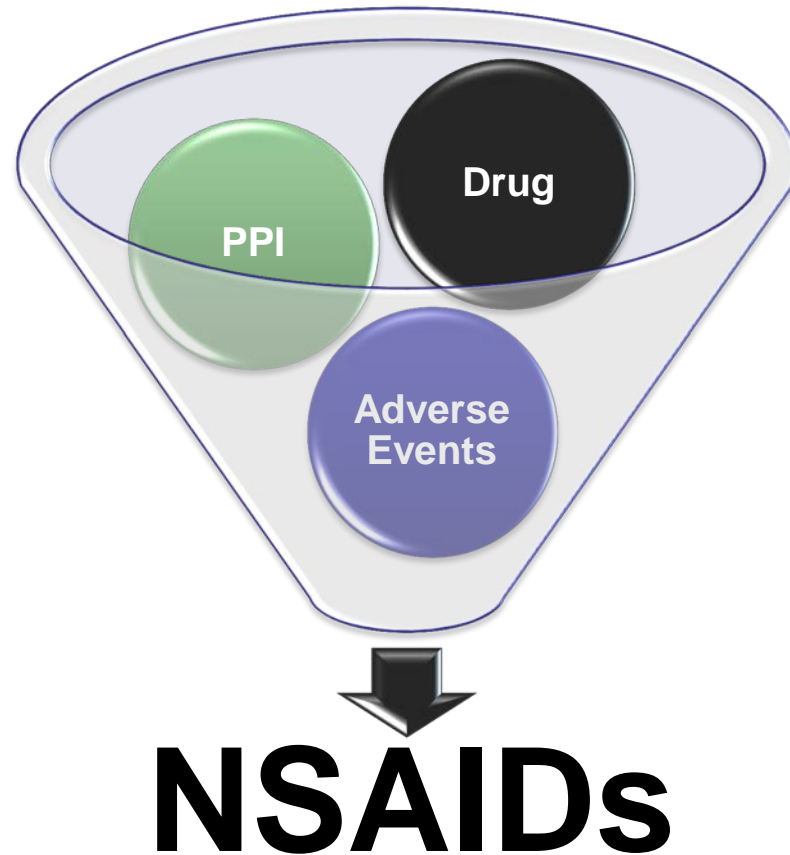
**3,82 Euros / inhab. / year for NSAIDs**

**0,41 Euros / inhab. / year for opioids**

➤ **Gastroprotective drugs** (population > 14 yo):

**1,27 Euros / inhab. / year**

# Costs for prescription



# Goals?

- General Practitioners Education
- Patient Education
- Prescription monitoring & analysis  
(Analgesic Observatory)

**> THANK YOU.**