

# HOSPITALIZATION RISK PROFILE OF OPIOIDS USERS IN ITALY

Giada Minelli

Statistics Service - Italian National Institute of Health

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## METHODS (1/2)

#### Data source

Is the hospital discharge forms collected by the Ministry of health (National Hospital Discharge Database (NHDB). The NHDB collects data regarding all patients discharged from any Italian public and private hospital.

#### **Case definition**

The "Cases" analysed in this study are the patients diagnosed with selected codes (in the table), reported as primary or secondary diagnoses in the discharge forms. The study period is 2005-2019.

SUBSTANCE INVOLVED IN DIAGNOSIS	ICD9-CM	DESCRIPTION OF DIAGNOSIS
OPIOIDS	3040	Opioid type dependence
	3055	Opioid abuse
	9650	Opiates and related narcotics

#### **Incident cases**

patients diagnosed with at least one of the selected ICD codes in their first hospitalization, occurred during the study period. A "washout" period (2001-2004) was used to exclude the inclusion of "prevalent" cases.



## METHODS (2/2)

## **Statistical Analysis**

incidence rates, age-standardized rates, the gender ratio (M:F) was calculated, and its trend over the study period was described.

## **Comorbidities**

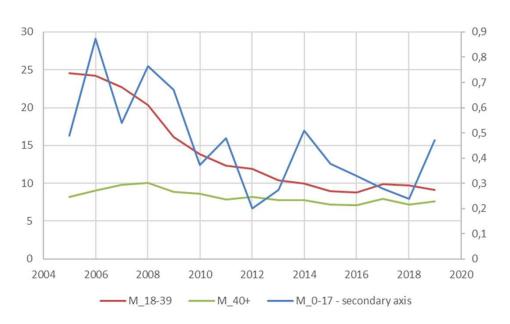
The main comorbidities are defined in table. For each comorbidity, the standardized hospitalization ratio (SHR), as well as its 95% CI, considering the hospitalized Italian population (stratified by gender) as reference.

COMORBIDITIES	ICD9-CM
Infectious and parasitic diseases	001-139
Malignant neoplasms	140-208
Diseases of the circulatory system	390-459
Diseases of the respiratory system	460-519
Diseases of the digestive system	520-579
Diseases of the urinary system	580-599

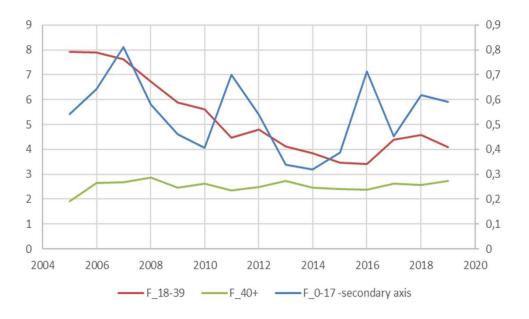


# HOSPITALIZATION TRENDS IN OPIOID USERS BY AGE AND GENDER

#### **MALES**

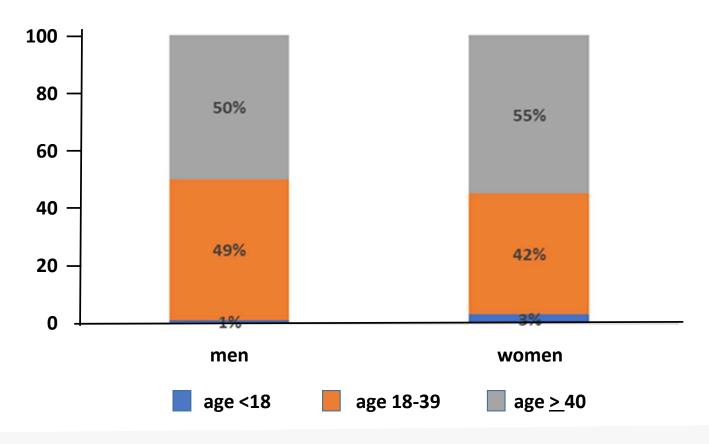


#### **FEMALES**





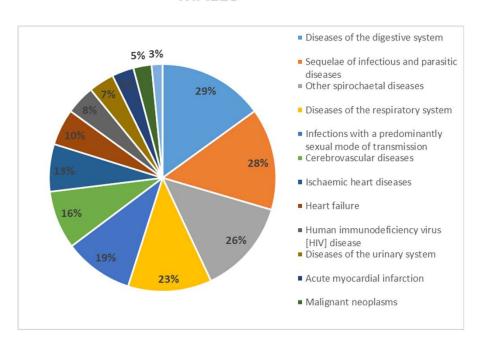
# PERCENTAGE OF HOSPITALIZATION BY AGE AND GENDER



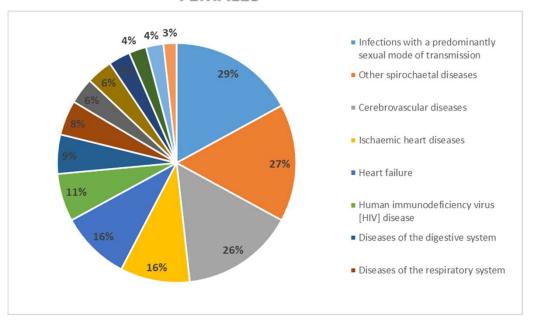


## MOST FREQUENT COMORBIDITIES

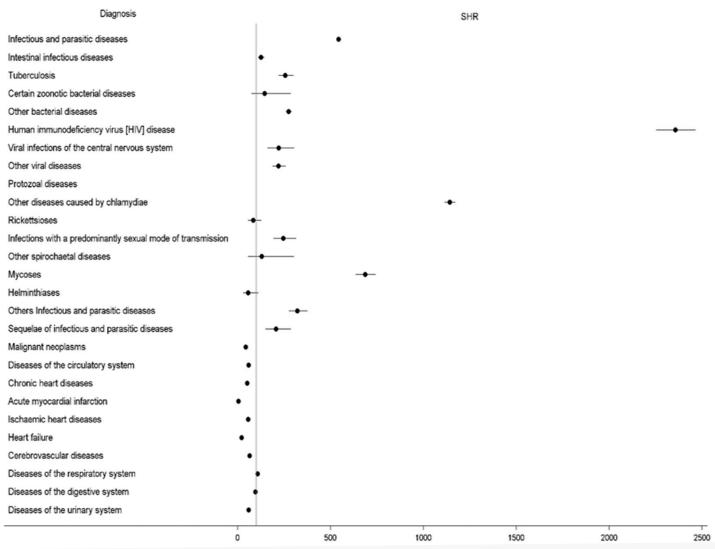
#### **MALES**



#### **FEMALES**

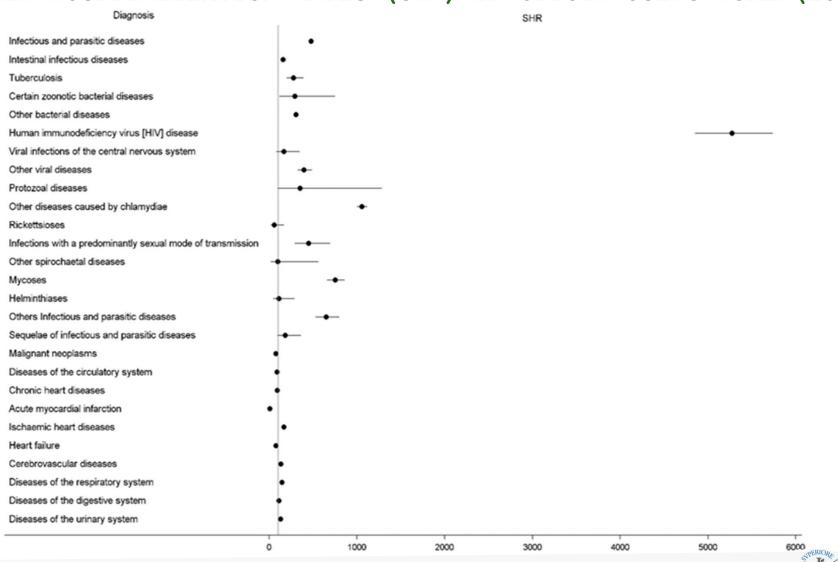


## STANDARDIZED HOSPITALIZATION RATES (SHR) IN OPIOID USERS-MEN(2005-2019)



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### STANDARDIZED HOSPITALIZATION RATES (SHR) IN OPIOID USERS-WOMEN (2005-2019)



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# CONSIDERATIONS (1/2)

The excess of comorbidities by age group showed that hospitalized patients under 18 years of age have no serious morbidity and the prevalence of concomitant diseases is low.

In the 18-39 age group women are hospitalized more than men for:

- intestinal infectious diseases
- other viral diseases,
- ischaemic heart diseases
- heart failure

in patients over 40 years of age, the most critical health profiles are highlighted with an excess of infectious pathologies in both genders; women have greater relative comorbidity for:

- Ischaemic heart diseases
- cerebrovascular diseases
- respiratory system diseases
- digestive system diseases
- urinary system diseases



# CONSIDERATIONS (2/2)



The study focused on opioid consumption, it also detected polyaddiction among in-patients, as was predictable

The excess of infectious and parasitic diseases among opioid users (most of them injecting drug users) is not a new finding, while other comorbidities are to be considered 'new information'



## CONCLUSIONS

This type of analysis is important because it covers the entire population and makes it possible to identify diseases that should be investigated through analytical studies based on specific cohorts to follow.

It also provides relevant information in terms of public health, giving guidance to public services on which disease burden should be kept under observation in these individuals.







Thank you for your attention