ANALYSIS OF OFF-LABEL USES OF INHALERS IN HOSPITALIZED PATIENTS

**PURPOSE.** To analyze indications for which IBs are used in hospitals and how many of them were off-label. Medical specialties involved in prescriptions of IBs and whether they were initiated at admission or in primary care were also evaluated.

**METHODS**
Descriptive, observational, cross-sectional study in a tertiary hospital of 1350 beds in Spain. Pharmacotherapy including IBs are prescribed to inpatients in our center is registered in an electronic prescription program (FarmaTools® version 5.0). Primary outcome: number of hospitalized patients treated with IBs whose indication is considered off-label. Authorized indications by European-Medicines-Agency were considered appropriate.

**RESULTS**
Pharmacotherapy of 555 admitted patients was analyzed, 104 patients (18.7%) were prescribed IBs (63.6% men, mean age 70±14,2)

31,7% were used for off-label indications:

- **Off-label indications of inhalers**
  - Respiratory infection 13%
  - Respiratory distress 12%
  - Asthma 7%
  - COPD 6%
  - Heart failure 2%
  - Non respiratory distress 5%

- **In-label indications of inhalers**
  - COPD 85%
  - Asthma 15%

**CONCLUSIONS**
- A high proportion of admitted patients are prescribed IBs, many of them used for off-label indications for which they have not proved effectiveness.
- Physicians, when prescribing IBs to patients with respiratory distress, should assess comprehensively whether indication is adequate or not taking into account that they are useful if it is associated with bronchoconstriction.
- Hospital pharmacists when reviewing treatments at admission have a good opportunity for deprescribing IBs inappropriately initiated in primary care in order to avoid inefficiency and potential adverse effects.