

# FACT-FINDING SURVEY ON THE USE OF ARTIFICIAL INTELLIGENCE IN HOSPITAL PHARMACY PRACTICE



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## Background and importance.

The Artificial intelligence (AI) represents a revolutionary new technology with a wide scope of application, including healthcare and hospital pharmacy. However, AI models use in clinical and pharmaceutical practice is facing critical challenges, i.e. data privacy, cybersecurity threats, potential algorithm biases, and ethical concerns.

## Aim and objectives.

The aim of the study was to investigate whether and how AI models are currently employed in hospital pharmacy practice, analyzing also educational aspects and hospital pharmacists' (HPs) attitudes to more consistent AI use in pharmacy practice

## Materials and methods.

An anonymous questionnaire, consisting of 11 multiple-choice items, was developed and made available online for Italian HPs and resident HPs in hospital pharmacy. A total of 65 respondents answered the questionnaire in a 3 months-period, from June 2025 to August 2025; the data were extrapolated and analyzed using a spreadsheet.

## Results.

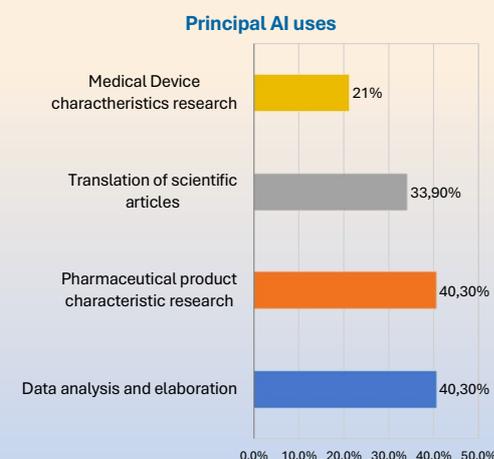
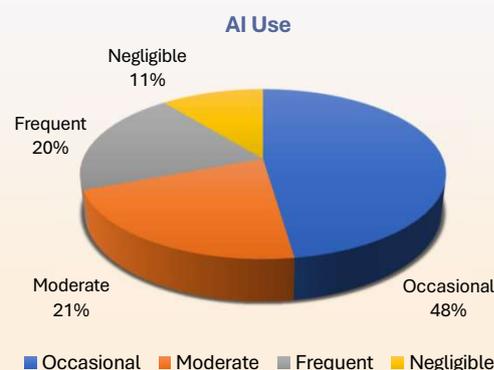
It is found out that 56/65 of respondents use A.I. models in daily hospital pharmacy practice (41/65 use generative A.I.; 15/65 use predictive A.I.); however, only 4/65 attended educational activities concerning A.I. before use.

A relevant percentage of respondents have knowledge of two critical issues concerning A.I. models, i.e. “A.I. hallucination” phenomenon (59/65) and incomplete reliability of A.I. outputs due to inaccuracies, biases, or inconsistencies in training datasets (51/65). The survey revealed that 55/64 of respondents verifies A.I. conclusions or predictions.

According to the survey, the respondents, who principally employ A.I. tools that use text as input (like ChatGPT; 53/63), defined their A.I. utilization as: “occasional” (31/65), “moderate” (14/65), “regular” (13/65).

The survey revealed the principal uses of A.I. tools include: data analysis and elaboration (25/62), search for characteristics of pharmaceutical products (25/62) and medical device (13/62), translation of scientific texts (21/62).

Moreover, 44/62 of respondents are not worried about the risk of decline in healthcare employment due to increase of AI use and express confidence in the regulatory processes.



## Conclusions and relevance.

A substantial percentage of respondents (61/65) is favorably disposed to educational activities that aim to guide and support pharmacists on the effective and ethical use of AI technologies. Although the critical challenges, the integration of AI systems into healthcare could represent a huge opportunity to improve clinical and pharmaceutical practice.