

ARTIFICIAL INTELLIGENCE IN PHARMACOVIGILANCE: TRANSFORMING LITERATURE SEARCHES WITH ADVANCED TECHNOLOGIES

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INTRODUCTION

Literature screening is an **essential process** in the field of **Pharmacovigilance (PV)**, as it facilitates the identification of relevant information regarding the safety and efficacy of medicinal products.

Artificial intelligence (AI) integrates **advanced technology** and machine learning techniques in **PV literature searches**, thereby accelerating the data collection process and allowing the analysis and interpretation of large volumes of information with unprecedented accuracy.

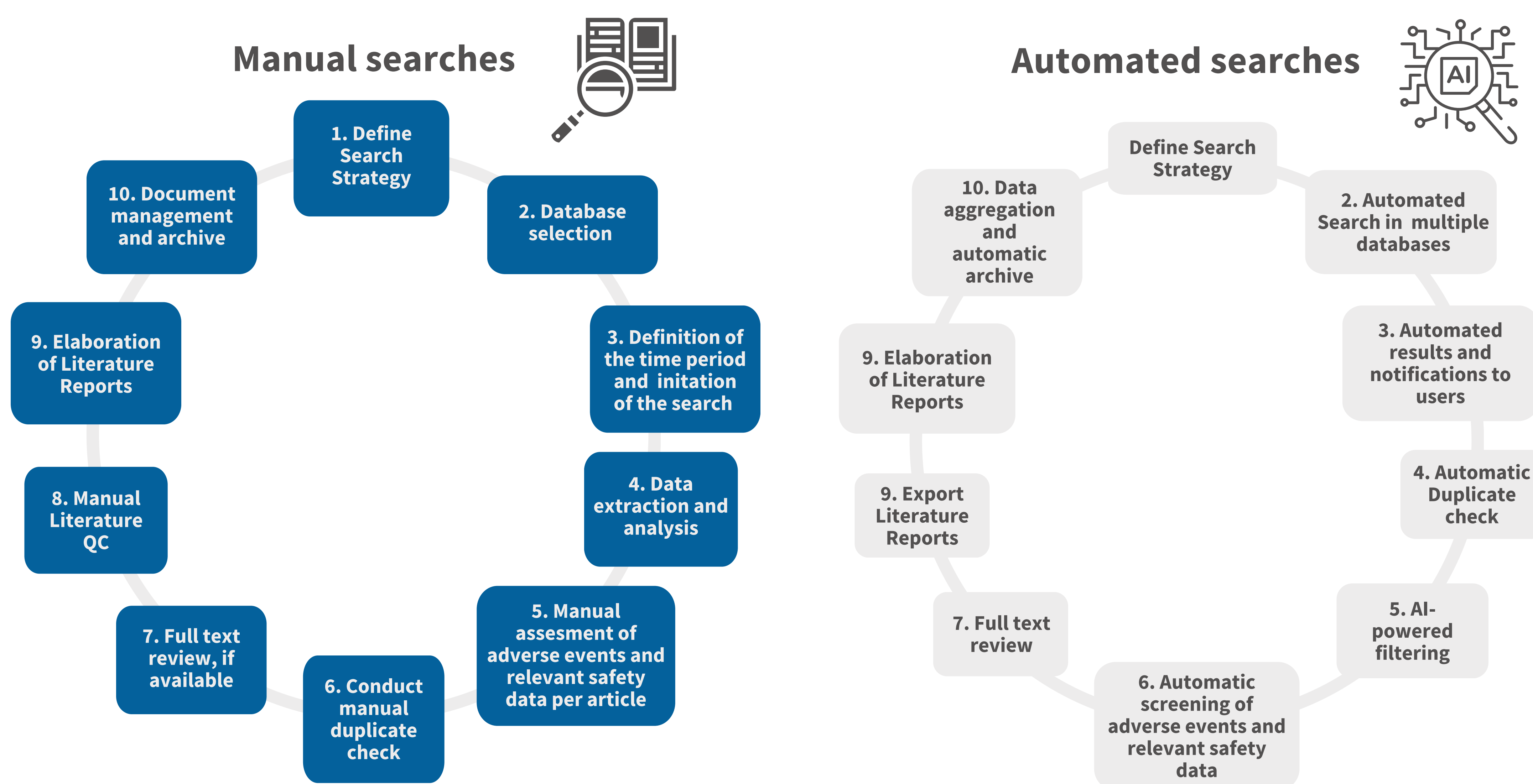
OBJECTIVES

The **main objective** of the conducted evaluation is to determine the **usefulness and effectiveness of automating PV literature searches** through the use of **AI software**. This involves analyzing its characteristics and functionalities in light of the specific requirements and needs of a PV Department.

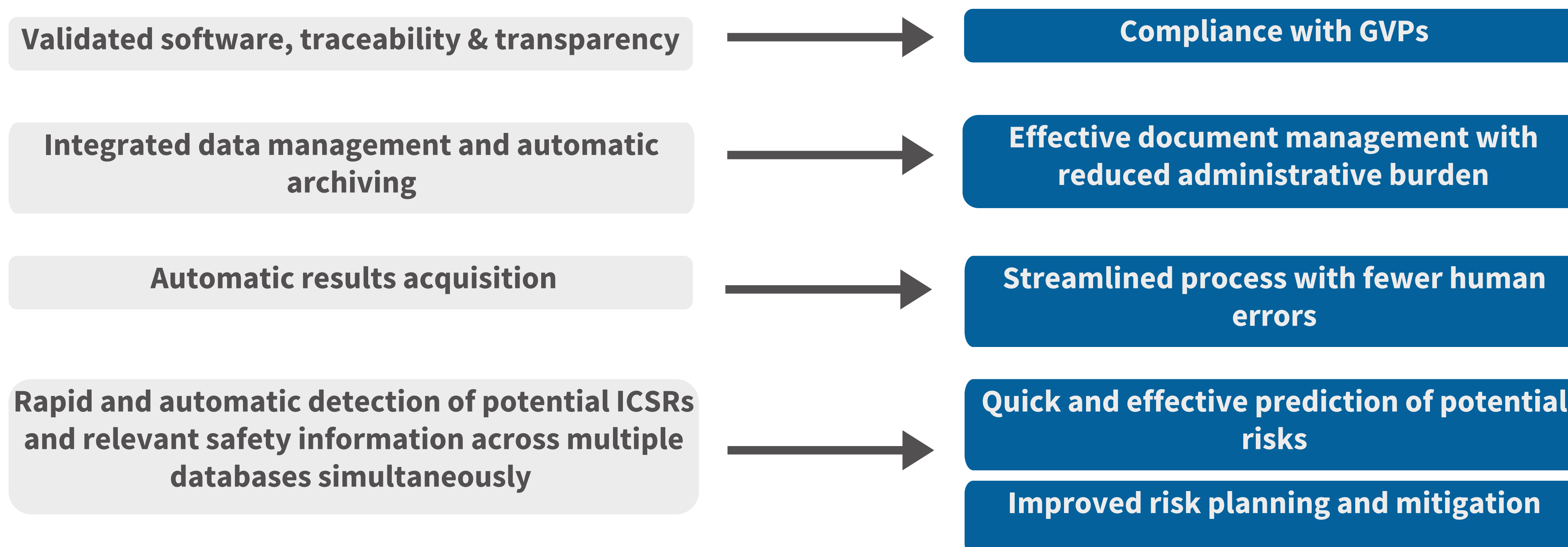
As a **secondary objective**, the evaluation aims to identify the **key points** that lead to **successful implementation** of said software.

RESULTS

Comparison of the workflow between manual literature searches vs. automated literature searches in PV



Benefits of AI in PV Literature Searches



Continuous improvements

Key points for a successful implementation of automated Literature searches

1. Appointing a dedicated team within the PV Unit to oversee and implement the software
2. Providing training to the team on how to use the software
3. Designing and implementing an action plan to perform comparative tests between automatic searches and manual searches
4. Selection and customization of search strategy with the software provider in alignment with company's requirements
5. SOPs update according to the new procedure
6. Providing training to the remaining members of the PV Unit
7. GO-live

CONCLUSION

The use of **software** for conducting **literature searches in PV** can be considered a highly **useful and beneficial tool** for Pharmacovigilance Departments, improving the **efficiency, speed, quality of work** and **profitability of the activity**.

The incorporation of advanced **AI tools** presents a significant opportunity to **enhance this crucial procedure in PV**, which typically consumes substantial time and resources.

However, it is **essential to guarantee the validity and transparency of AI algorithms** and maintain an adequate balance between automation and expert supervision in the area of PV.