

The efficiency of **NESTED KNOWLEDGE** to facilitate the conduction of a systematic review and meta-analysis

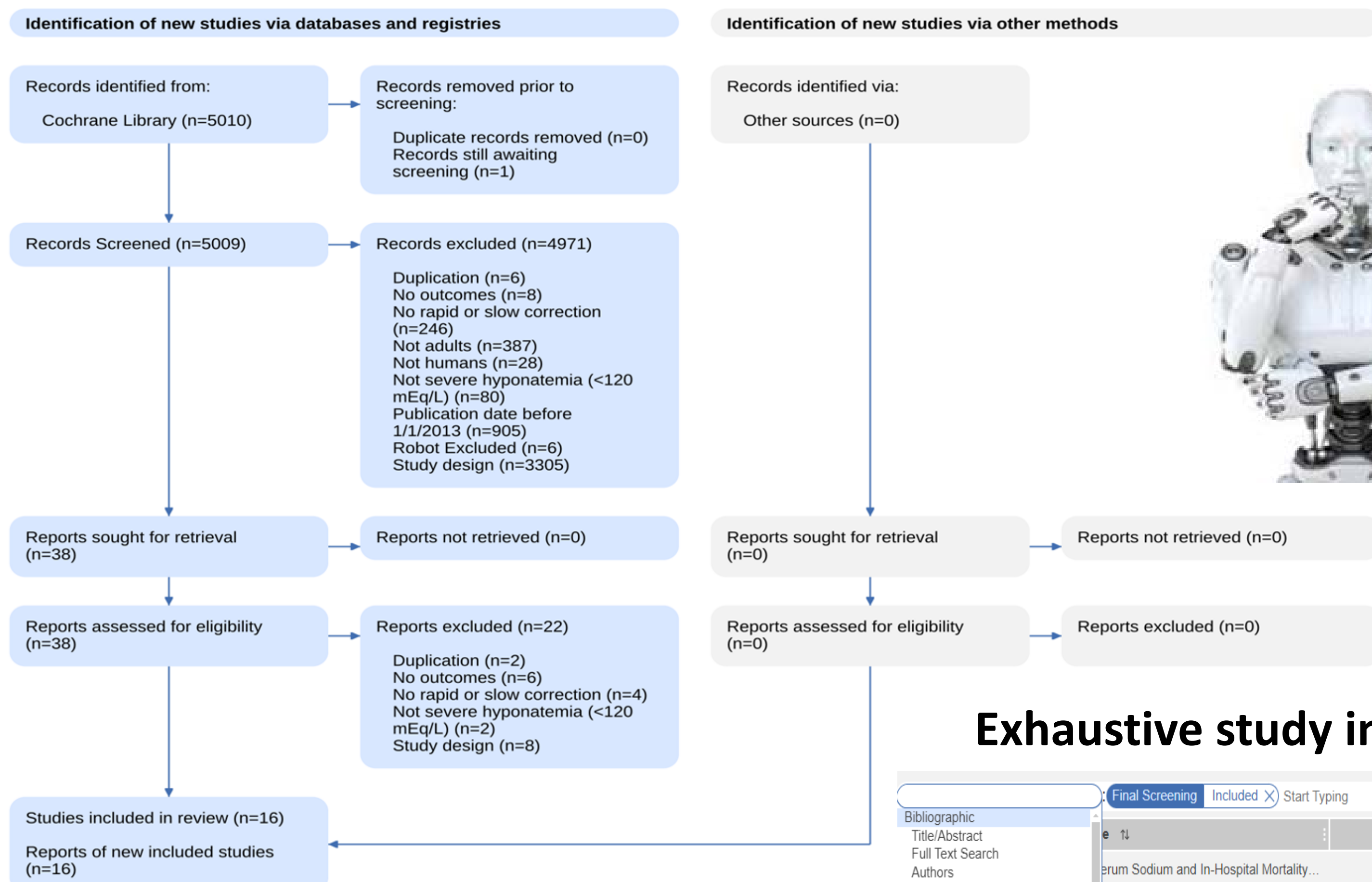
Experience with a semi-automated systematic review web-based platform powered by artificial intelligence (AI)

Background: Timely syntheses of evidence are necessary for making informed decisions, particularly regarding high-priority urgent health problems. We evaluated the efficiency of Nested Knowledge (**NK**) to facilitate the conduction of a systematic review and meta-analysis. nested-knowledge.com

Screening highlighting PICO & keywords

- The platform was very intuitive and no special training was required.
- The automatic PICO highlighting, the AI-prediction of the most relevant studies and the study inspector facilitated the screening.
- The model training required 50 records (including 10 potentially eligible studies). Once the screening ~5000 records was completed by one reviewer, the dual screening by robot took <1 minute and the discrepancy resolution of 292 records took ~3 hours with no potentially eligible study was excluded by the robot.
- The platform maintained a full audit record of our activities.

PRISMA 2020 chart

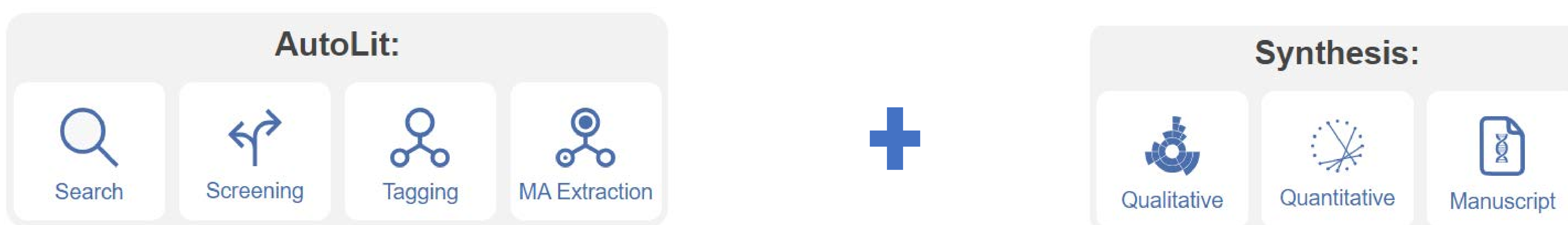


Exhaustive study inspector

User	AB Screen	FT Screen	Extraction
Agustin Ciapponi	AB Screened: 132 AB Adjudicated: 5001	FT Screened: 30 FT Adjudicated: 38	Tagged: 11
Jhonatan Mejia	AB Screened: 2630 AB Adjudicated: 9	FT Screened: 26 FT Adjudicated: 0	Tagged: 5
nora fuentes	AB Screened: 1277 AB Adjudicated: 0	FT Screened: 1 FT Adjudicated: 0	Tagged: 2
Juan Martin Alfonso	AB Screened: 328 AB Adjudicated: 0	FT Screened: 1 FT Adjudicated: 0	Tagged: 0

Methods

- We used **NK**, in a systematic review to select studies assessing sodium correction velocity in terms of mortality, neurological complications, and length of stay (CRD42023475592).
- This software composed of two parts that to complete all a systematic review stages:



Limitation: The rest of functionalities should be tested in more systematic reviews to confirm **NK** performance.