

From routine to research data: Automatic flow and preprocessing of routine data in the NCCR AntiResist project

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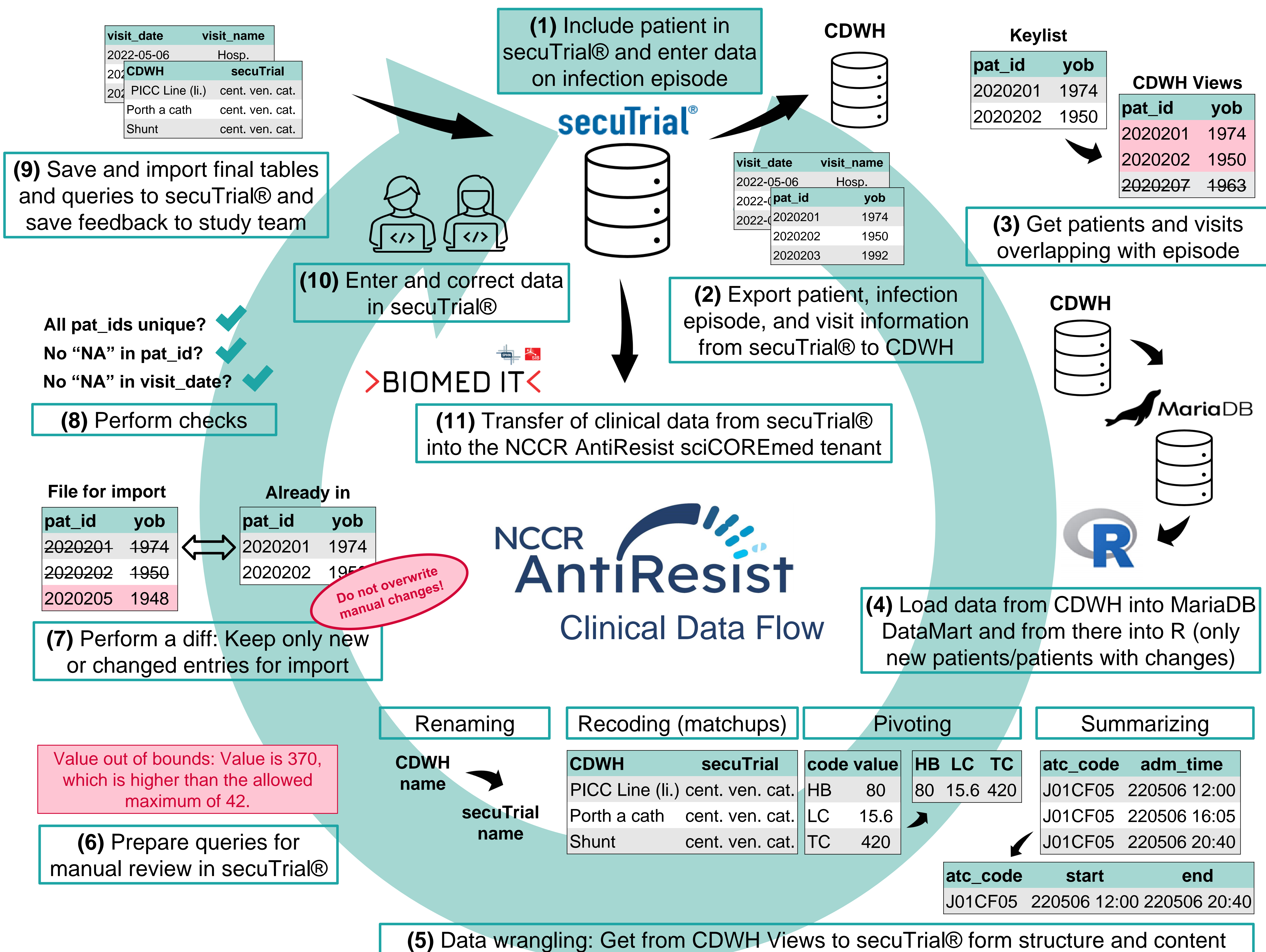
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Background

NCCR AntiResist, a multi-centre, interdisciplinary research program, aims to bring about a paradigm shift in antibiotics research. To this end, the Clinical Studies work package collects samples and routine data of infected patients.

At the University Hospital Basel (USB) we implement an automated data pipeline to integrate routine data provided by the USB Clinical Data Warehouse (CDWH) into an electronic data capture system (EDC, secuTrial®) where data are curated and supplemented by manually entered study data.



Challenges

- Large amount of data: Over 160 variables from CDWH for hundreds of patients
- Combination of automatically imported routine data and manually entered data in the same (sub-)forms in secuTrial®
- Characteristic of routine data demands automated checks / corrections as well as manual amendments
- Daily imports planned for multiple years

Conclusion

- Often, routine data may not be readily used for research. Pre-processing, quality-checks, and sometimes even manual inspection and correction are necessary.
- Our data transfer and pre-processing routines will be available for future projects with continuous import of clinical routine data into an EDC for manual curation and study-specific interpretation.