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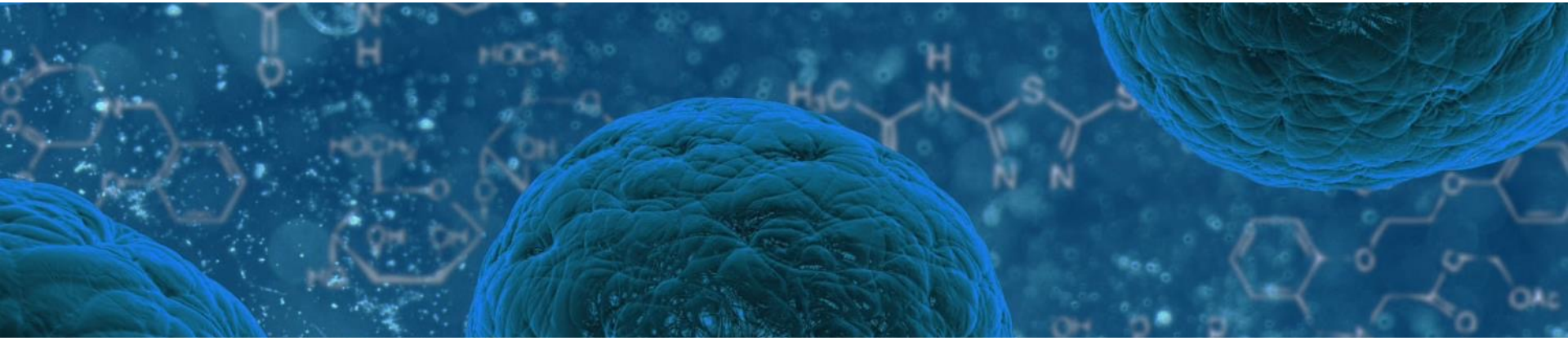

FID Pharmazie - Narrative Service

Hermann Kroll

17.01.2023

Fachinformationsdienst (FID) Pharmazie

- Collaboration (cooperation project) between University Library and the Institute for Information Systems at TU Braunschweig
- Funded by the DFG (German Research Foundation) since 2015 (previous project: „Sondersammelgebiet Pharmazie“)

- Aims:
  - Improvement of literature supply
  - Optimisation of literature search and full-text access
  - Development of innovative search tools

www.pubpharm.de

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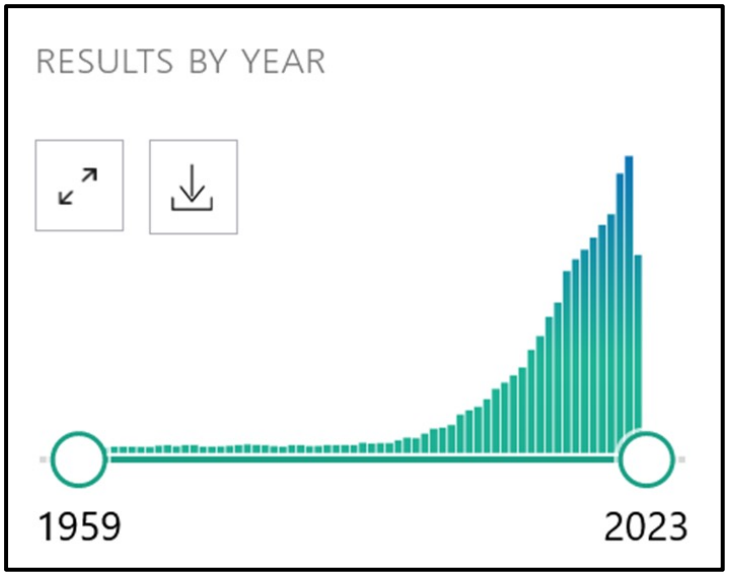
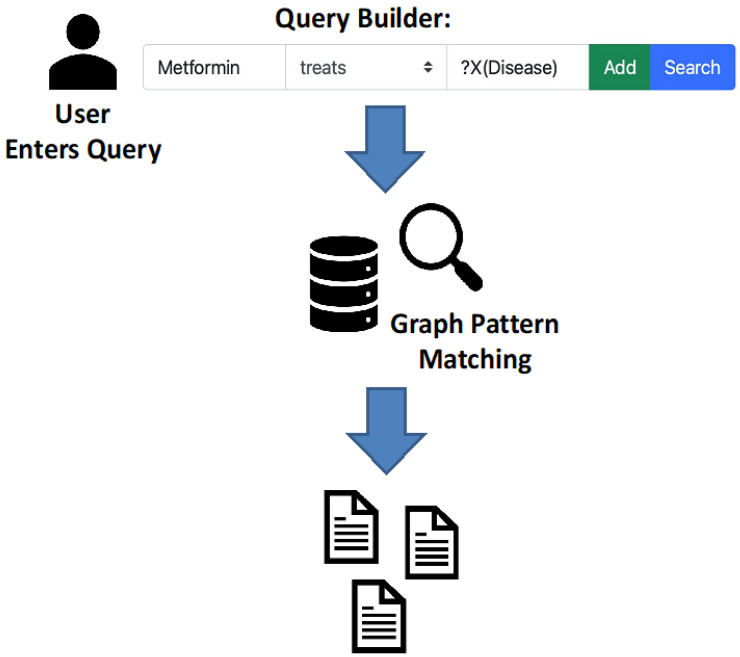
Why?

- Example Search in PubMed (09/2022)
  - “Metformin“
    - 27,697
  - “Metformin Diabetes“
    - 18,932
  - “Metformin Diabetes Treatment“
    - 17,003
  - Which other diseases are treated?



Narrative Service & Drug Overviews

Narrative Service



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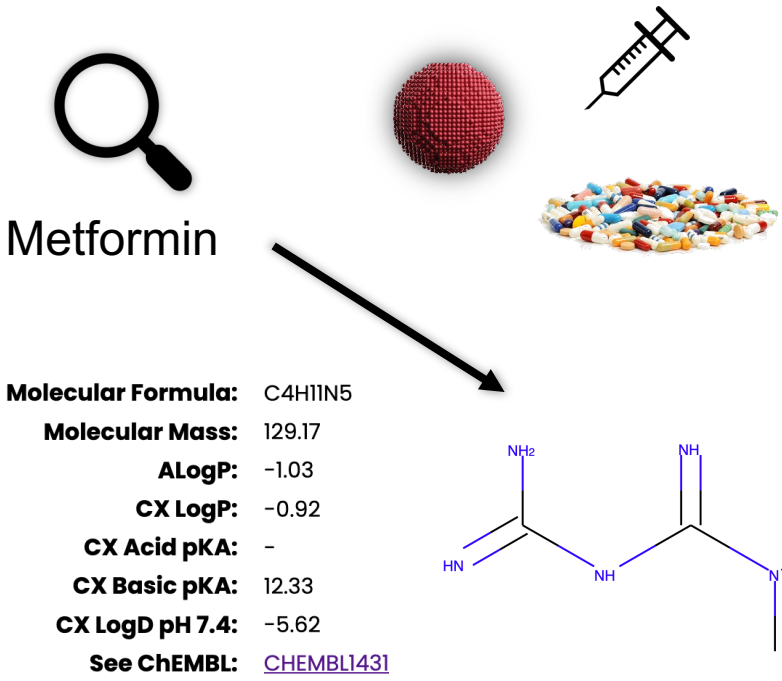
Drug Overviews



www.narrative.pubpharm.de/drug_overview

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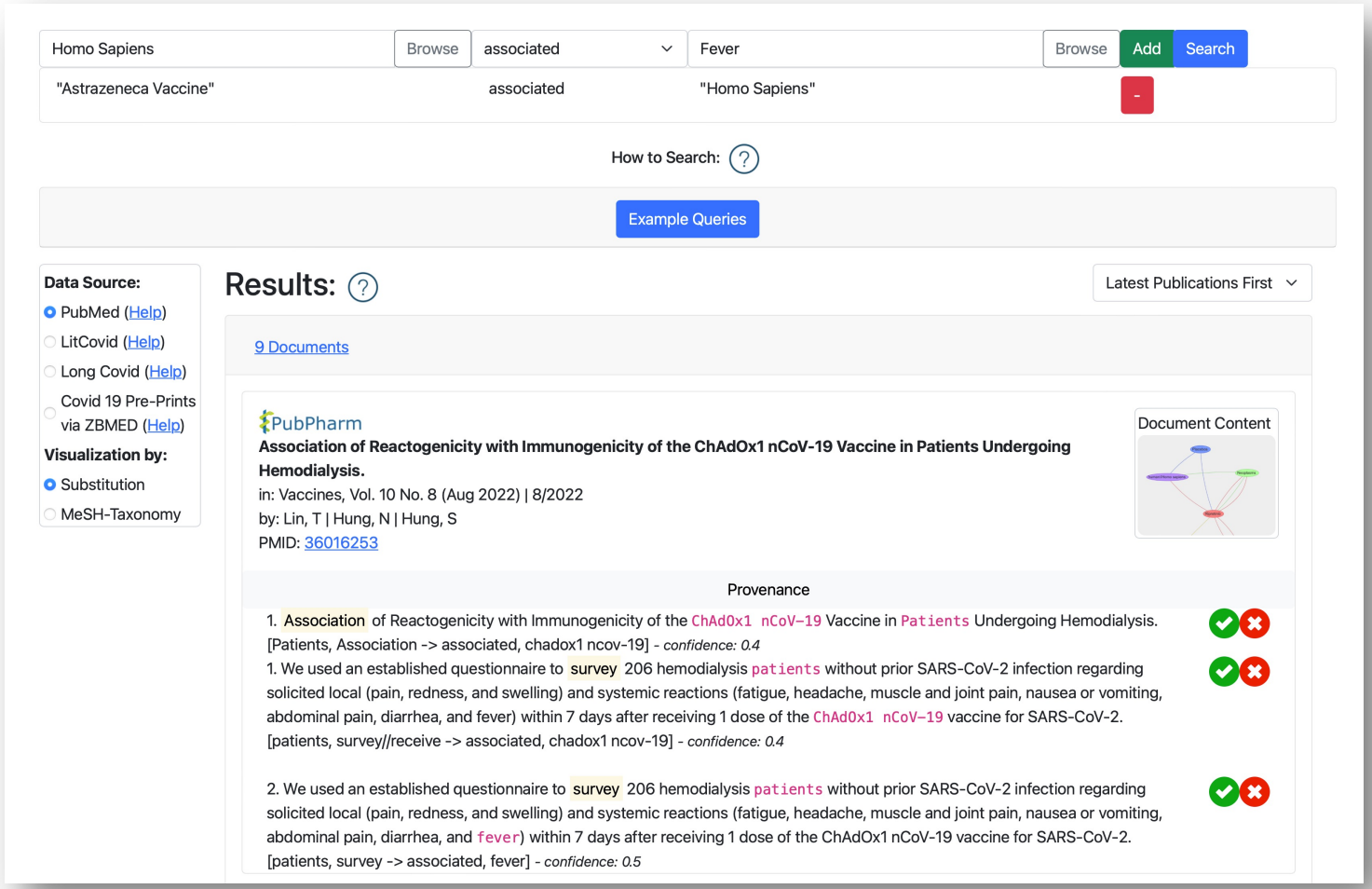
Narrative Service



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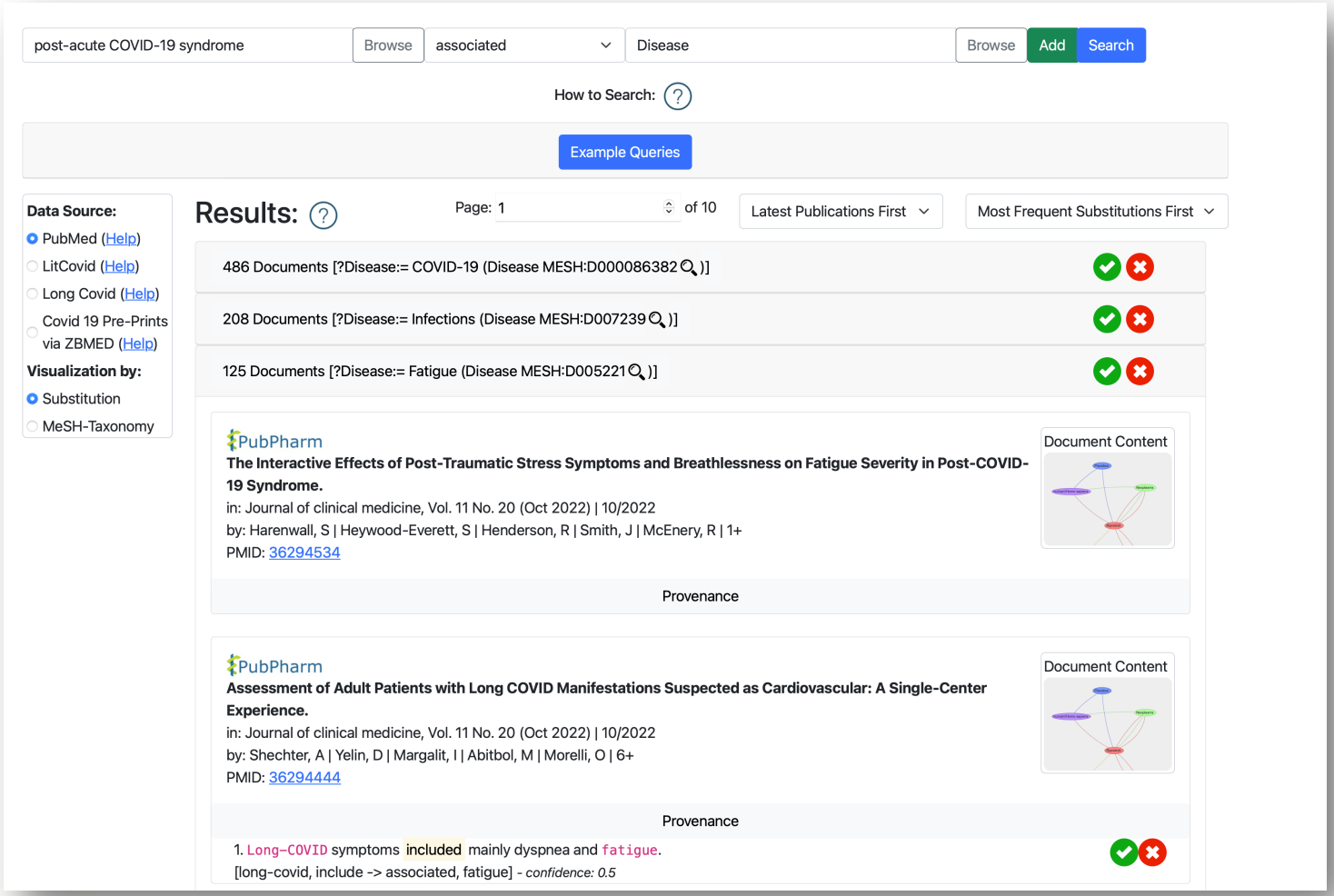

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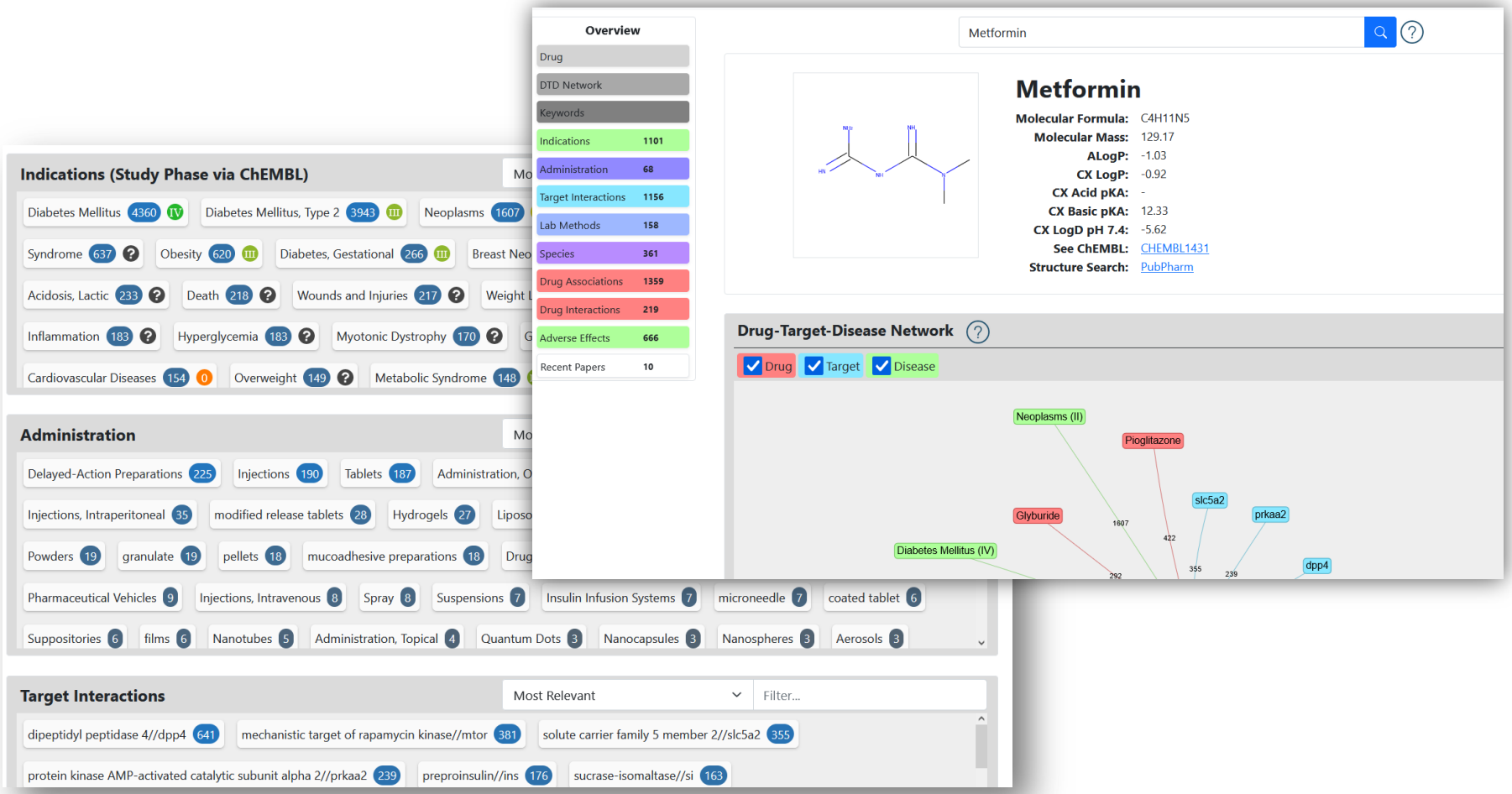
Drug Overview



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Document Content

View Paper Open in a new tab

- [x] All
- [x] Chemical
- [x] Disease
- [x] Drug
- [x] Method
- [x] Species
- [x] Vaccine

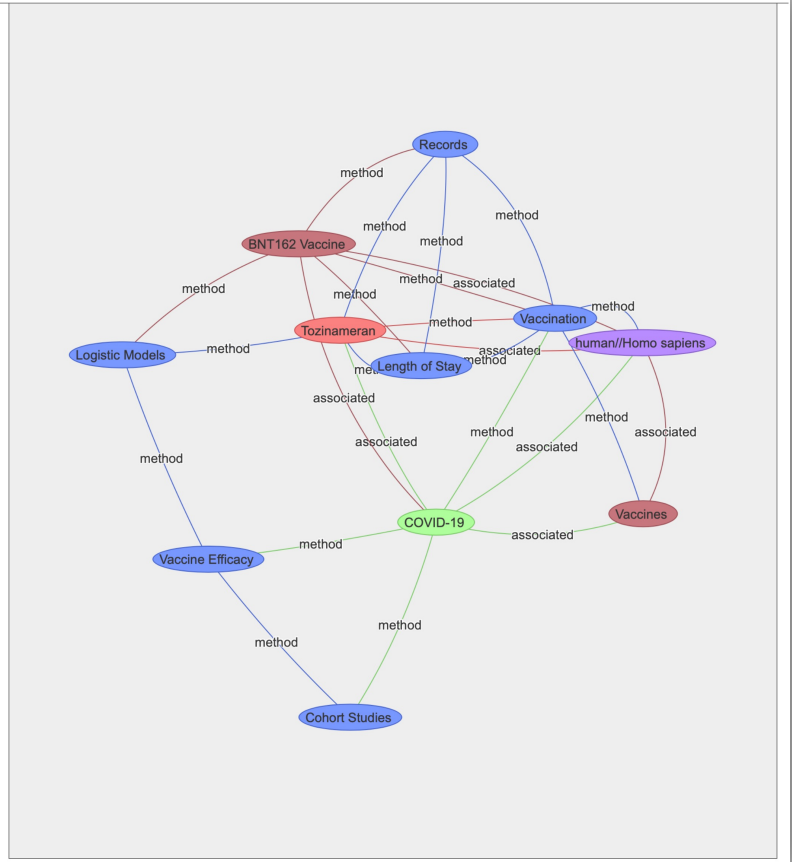
BNT162b2 COVID-19 vaccination uptake, safety, effectiveness and waning in children and young people aged 12-17 years in Scotland.

Rudan, I | Millington, T | Antal, K | Grange, Z | Fenton, L | Sullivan, C | Buelo, A | Wood, R | Woolford, L | Swann, O | Murray, J | Cullen, L | Moore, E | Haider, F | Almaghrabi, F | McMenamin, J | Agrawal, U | Shah, S | Kerr, S | Simpson, C | Katikireddi, S | Ritchie, S | Robertson, C | Sheikh, S

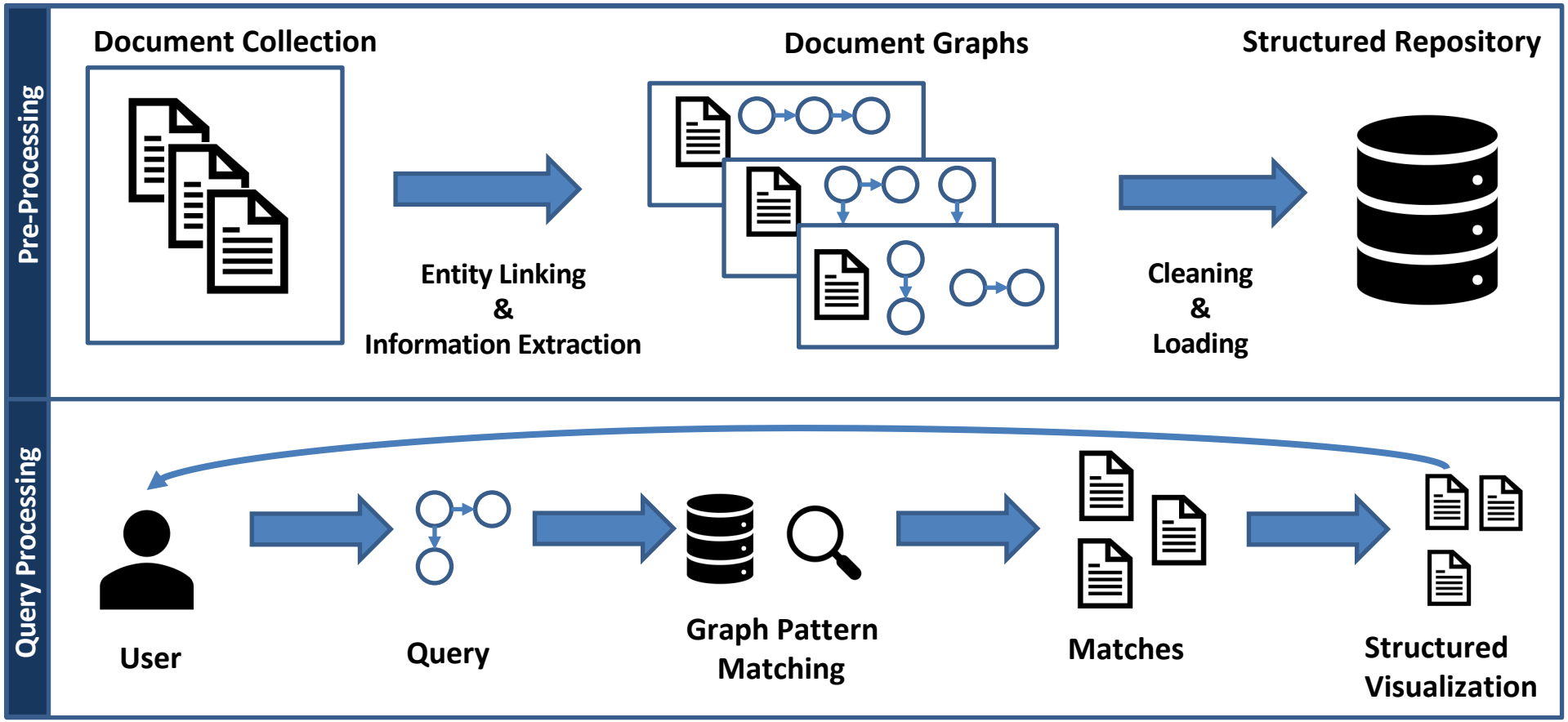
The Lancet regional health. Europe, Vol. 23 No. (Dec 2022)

12/2022

Background: The two-dose BNT162b2 (Pfizer-BioNTech) vaccine has demonstrated high efficacy against COVID-19 disease in clinical trials of children and young people (CYP). Consequently, we investigated the uptake, safety, effectiveness and waning of the protective effect of the BNT162b2 against symptomatic COVID-19 in CYP aged 12-17 years in Scotland. Methods: The analysis of the vaccine uptake was based on information from the Turas Vaccination Management Tool, inclusive of Mar 1, 2022. Vaccine safety was evaluated using national data on hospital admissions and General Practice (GP) consultations, through a self-controlled case series (SCCS) design, investigating 17 health outcomes of interest. Vaccine effectiveness (VE) against symptomatic COVID-19 disease for Delta and Omicron variants was estimated using a test-negative design (TND) and S-gene status in a prospective cohort study using the Scotland-wide Early Pandemic Evaluation and Enhanced Surveillance of COVID-19 (EAVE II) surveillance platform. The waning of the VE following each dose of BNT162b2 was assessed using a matching process followed by conditional logistic regression. Findings: Between Aug 6, 2021 and Mar 1, 2022, 75.9% of the 112,609 CYP aged 16-17 years received the first and 49.0% the second COVID-19 vaccine dose. Among 237,681 CYP aged 12-15 years, the uptake was 64.5% and 37.2%, respectively. For 12-17-year-olds, BNT162b2 showed an excellent safety record, with no increase in hospital stays following vaccination for any of the 17 investigated health outcomes. In the 16-17-year-old group, VE against symptomatic COVID-19 during the Delta period was 64.2% (95% confidence interval [CI] 59.2-68.5) at 2-5 weeks after the first dose and 95.6% (77.0-99.1) at 2-5 weeks after the second dose. The respective VEs against symptomatic COVID-19 in the Omicron period were 22.8% (95% CI -6.4-44.0) and 65.5% (95% CI 56.0-73.0). In children aged 12-15 years, VE against symptomatic COVID-19 during the Delta period was 65.4% (95% CI 61.5-68.8) at 2-5 weeks after the first dose, with no observed cases at 2-5 weeks after the second dose. The corresponding VE against symptomatic COVID-19 during the Omicron period were 30.2% (95% CI 18.4-40.3) and 81.2% (95% CI 77.7-84.2). The waning of the protective effect against the symptomatic disease began after five weeks post-first and post-second dose. Interpretation: During the study period, uptake of BNT162b2 in Scotland has covered more than two-thirds of CYP aged 12-17 years with the first dose and about 40% with the second dose. We found no increased likelihood of admission to hospital with a range of health outcomes in the period after vaccination. Vaccination with both doses was associated with a substantial reduction in the risk of COVID-19 symptomatic disease during both the Delta and Omicron periods, but this protection began to wane after five weeks. Funding: UK Research and Innovation (Medical Research Council); Research and Innovation Industrial Strategy Challenge Fund; Chief Scientist's Office of the Scottish Government; Health Data Research UK; National Core Studies - Data and Connectivity.



Discovery System



Semantic Enrichment

- Why?
  - Provide **effective access-paths** to the literature
  - PubPharm includes nearly 55 million publications

- How?
  - **Classifying** the document content (pharmaceutical)
  - **Linking** pharmaceutical **entities**
  - **Extracting** relationships between **entities**

You want to know more?

- Narrative Information Access:
  - www.narrative.pubpharm.de
  - https://doi.org/10.1145/3529372.3530928
    - Presentation: https://youtu.be/W7V4QUyzmYI
  - https://doi.org/10.1007/978-3-030-91669-5_7
    - Presentation: https://youtu.be/9N1XTXPEqfU

- Knowledge Extraction Toolbox:
  - Code & Data: https://github.com/HermannKroll/KGExtractionToolbox
  - https://doi.org/10.1109/JCDL52503.2021.00014
    - Presentation: https://youtu.be/G6ndS0GZBeg
  - https://doi.org/10.1145/3529372.3530924
    - Presentation: https://youtu.be/yGlF2M1xB9I

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kroll@ifis.cs.tu-bs.de @HermannKroll / @PubPharm @hkroll@fosstodon.org

Vielen Dank für Ihre Aufmerksamkeit!

- PubPharm Rechercheplattform: www.pubpharm.de | PubPharm-Blog: https://blogs.tu-braunschweig.de/pubpharm

Fachinformationsdienst Pharmazie
Universitätsbibliothek Braunschweig, TU Braunschweig
Universitätsplatz 1, 38106 Braunschweig
E-Mail: pubpharm@tu-braunschweig.de
Tel.: 0531 / 391 5046

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