

University of Groningen

## RadaR (Rapid analysis of diagnostic and antimicrobial patterns in R) - an interactive open source software tool

Luz, Christian; Berends, Matthias; Dik, Jan-Willem; Beerlage-de Jong, Nienke; Lokate, Mariëtte; Glasner, Corinna; Sinha, Bhanu

**IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.**

*Publication date:*  
2018

[Link to publication in University of Groningen/UMCG research database](#)

### *Citation for published version (APA):*

Luz, C., Berends, M., Dik, J-W., Beerlage-de Jong, N., Lokate, M., Glasner, C., & Sinha, B. (2018). RadaR (Rapid analysis of diagnostic and antimicrobial patterns in R) - an interactive open source software tool. Poster session presented at European Congress of Clinical Microbiology and Infectious Diseases (ECCMID) 2018, Madrid, Spain.

### **Copyright**

Other than for strictly personal use, it is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license (like Creative Commons).

### **Take-down policy**

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

*Downloaded from the University of Groningen/UMCG research database (Pure): <http://www.rug.nl/research/portal>. For technical reasons the number of authors shown on this cover page is limited to 10 maximum.*

## DETECT PATTERNS IN

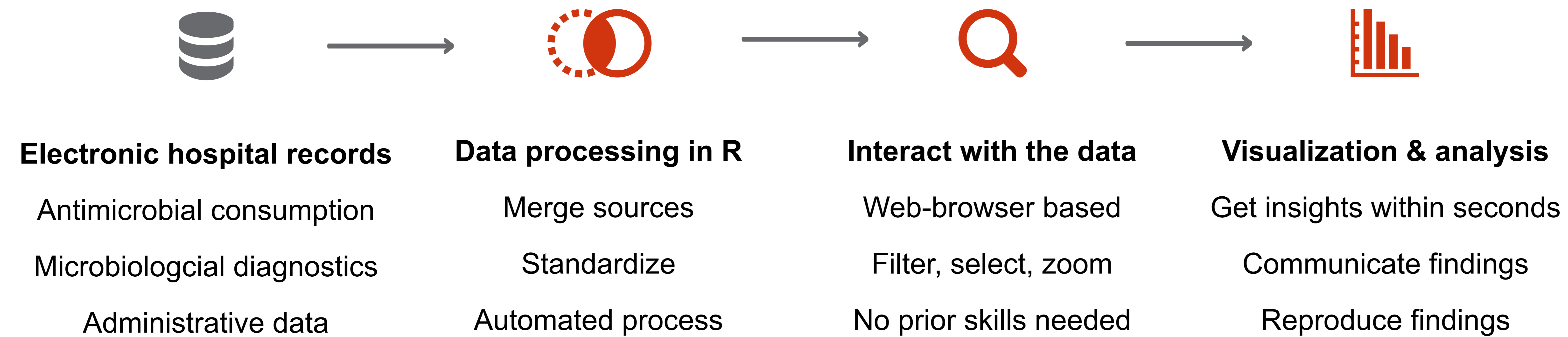
PATIENTS

ANTIMICROBIALS

DIAGNOSTICS

OUTCOME

### RadaR - methods



### RadaR - use

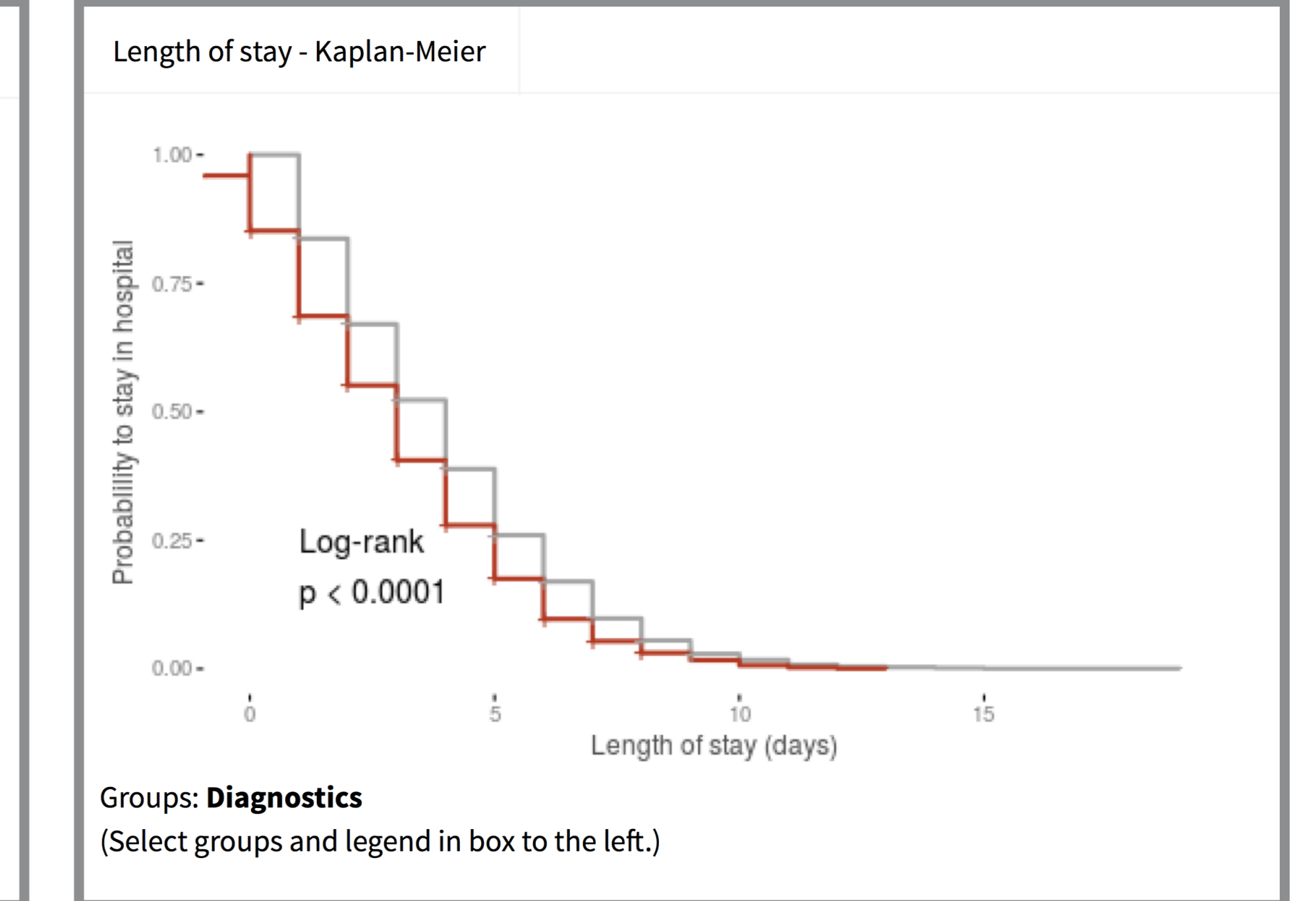
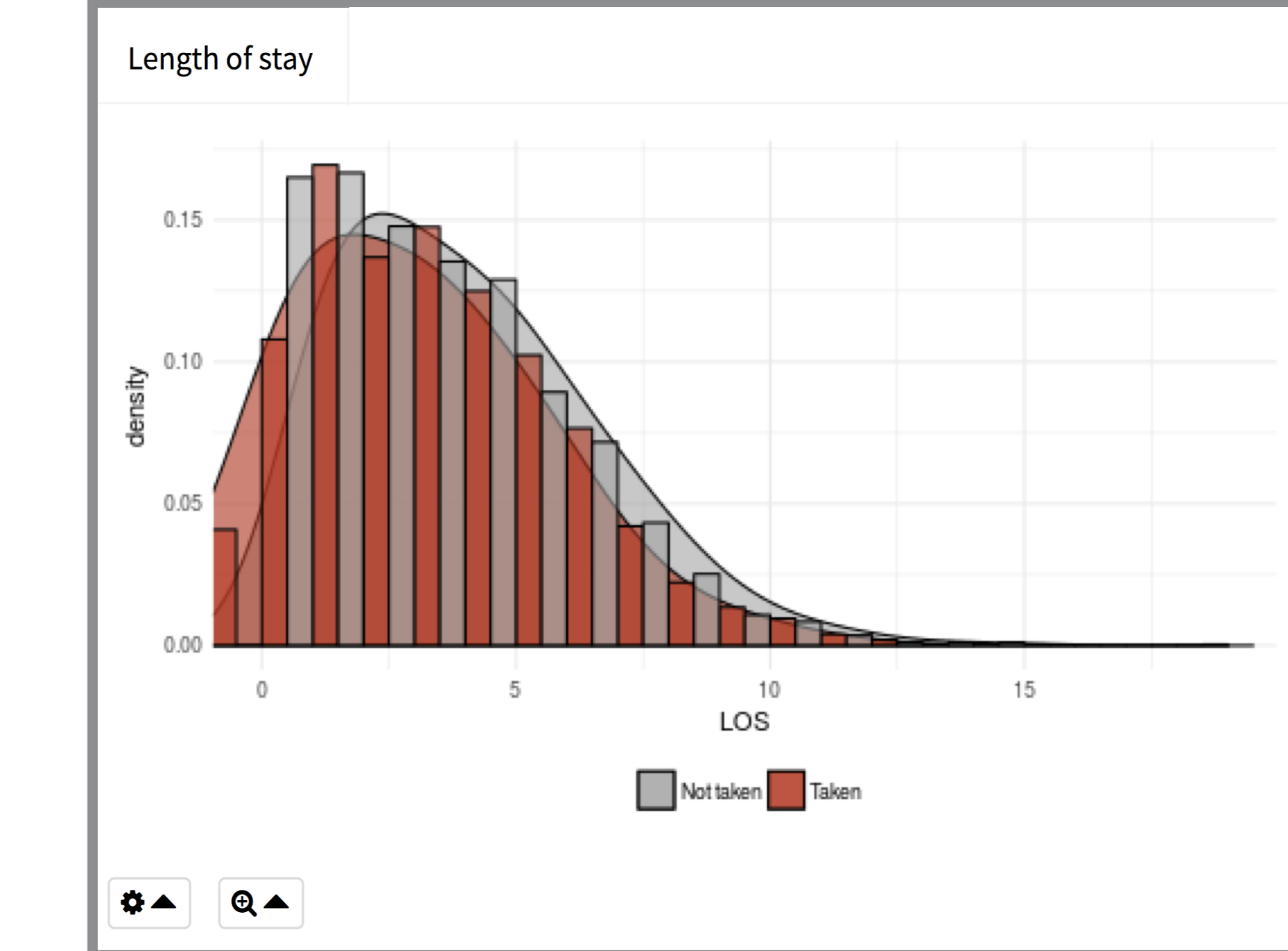
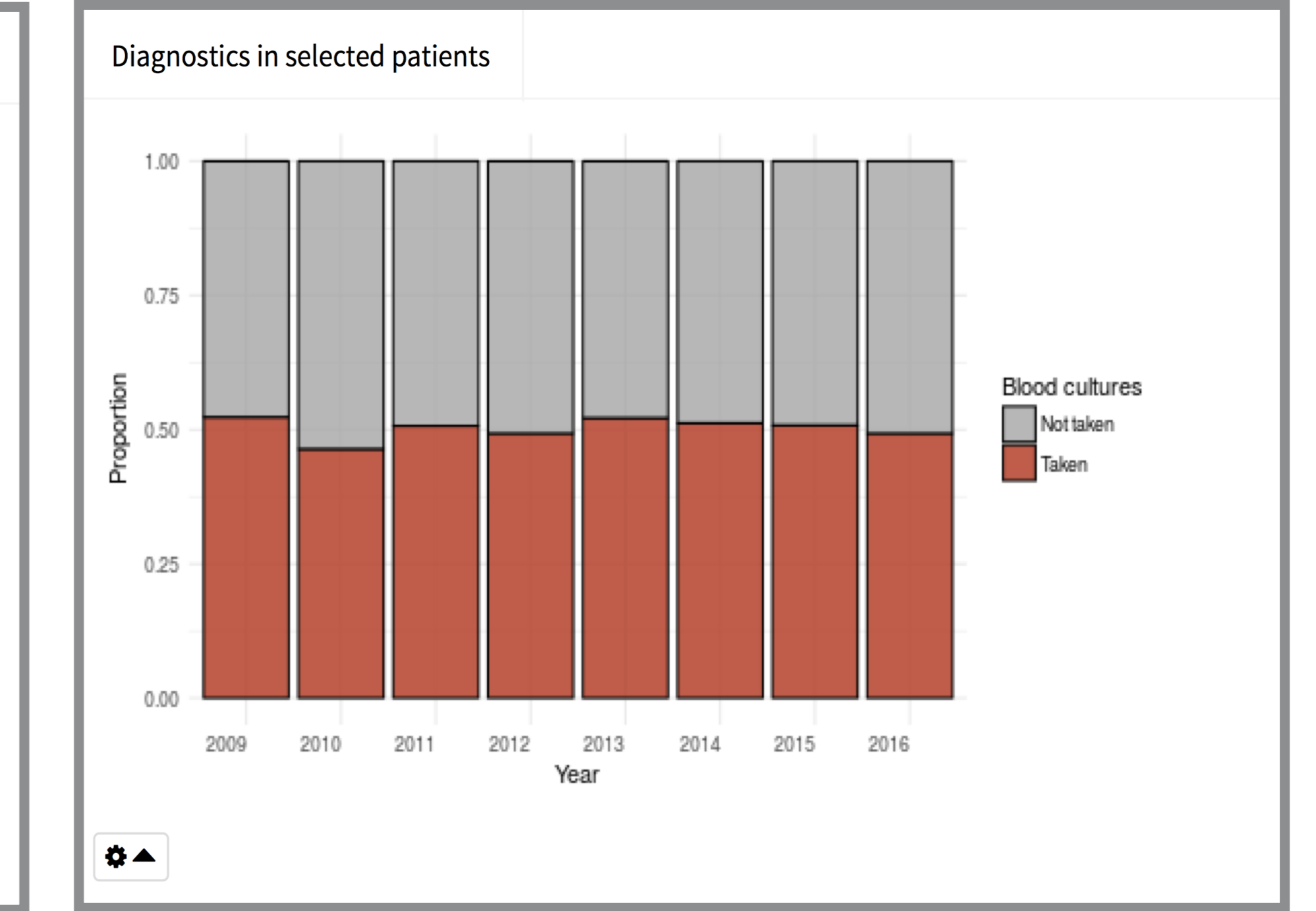
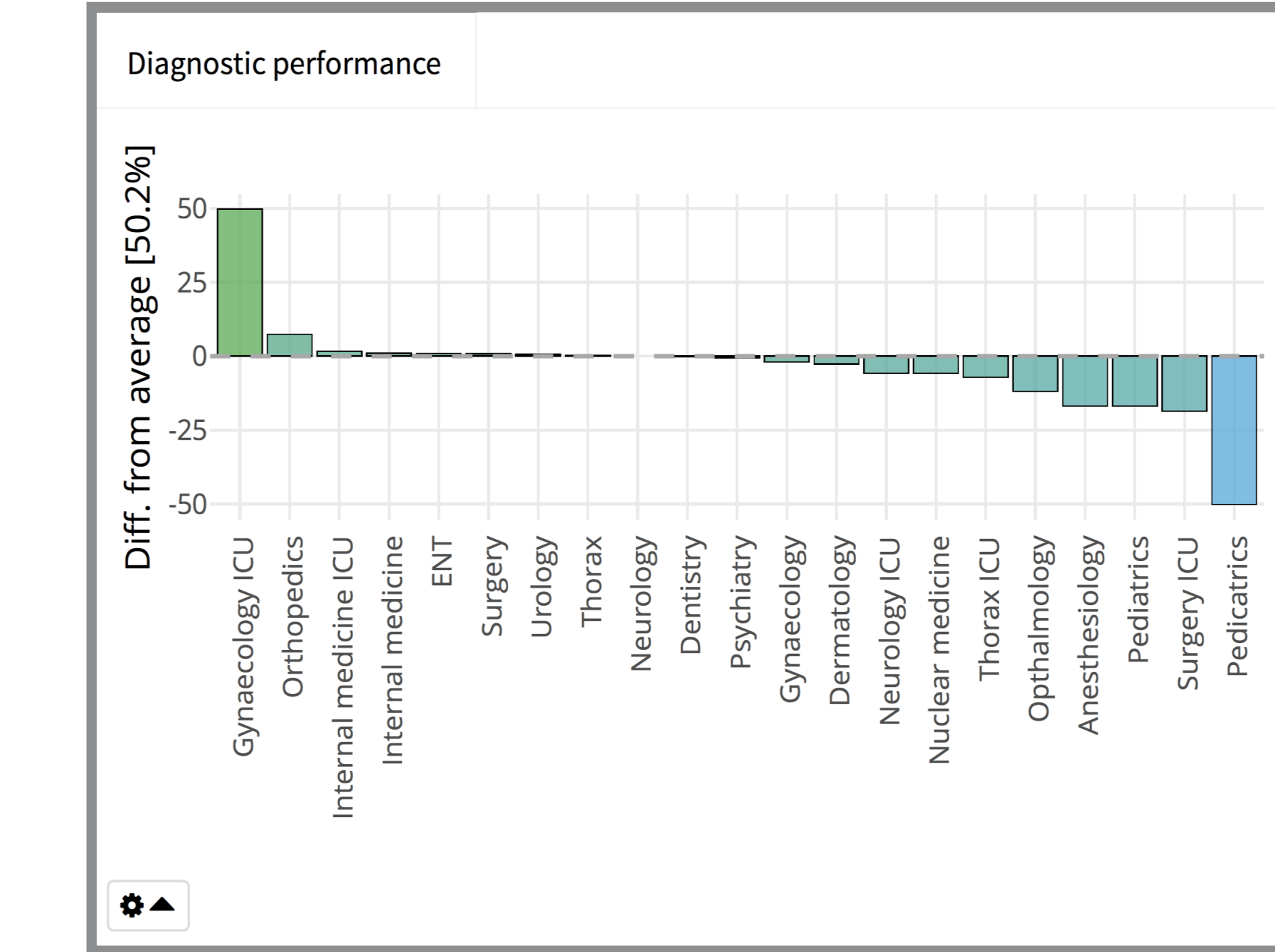
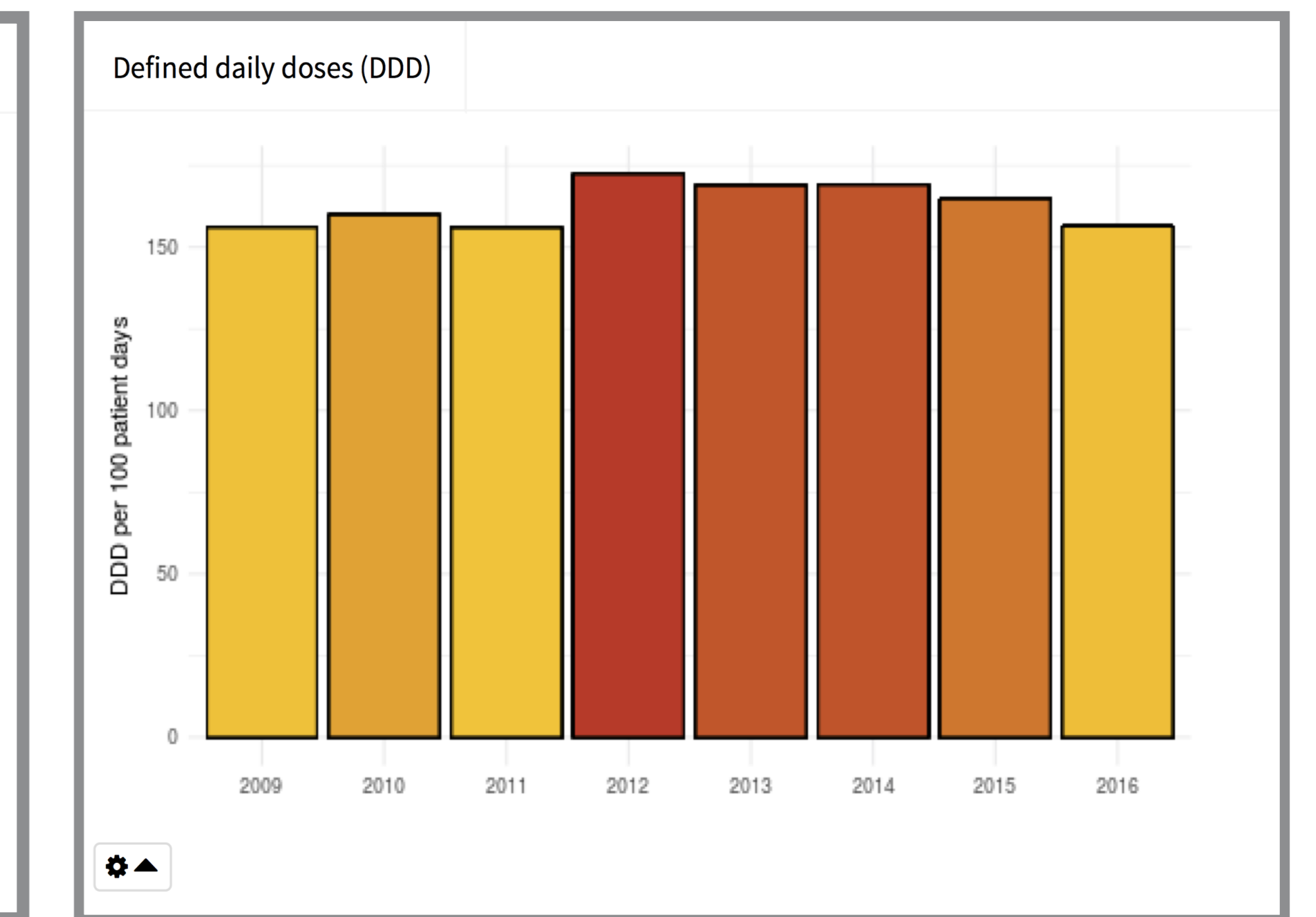
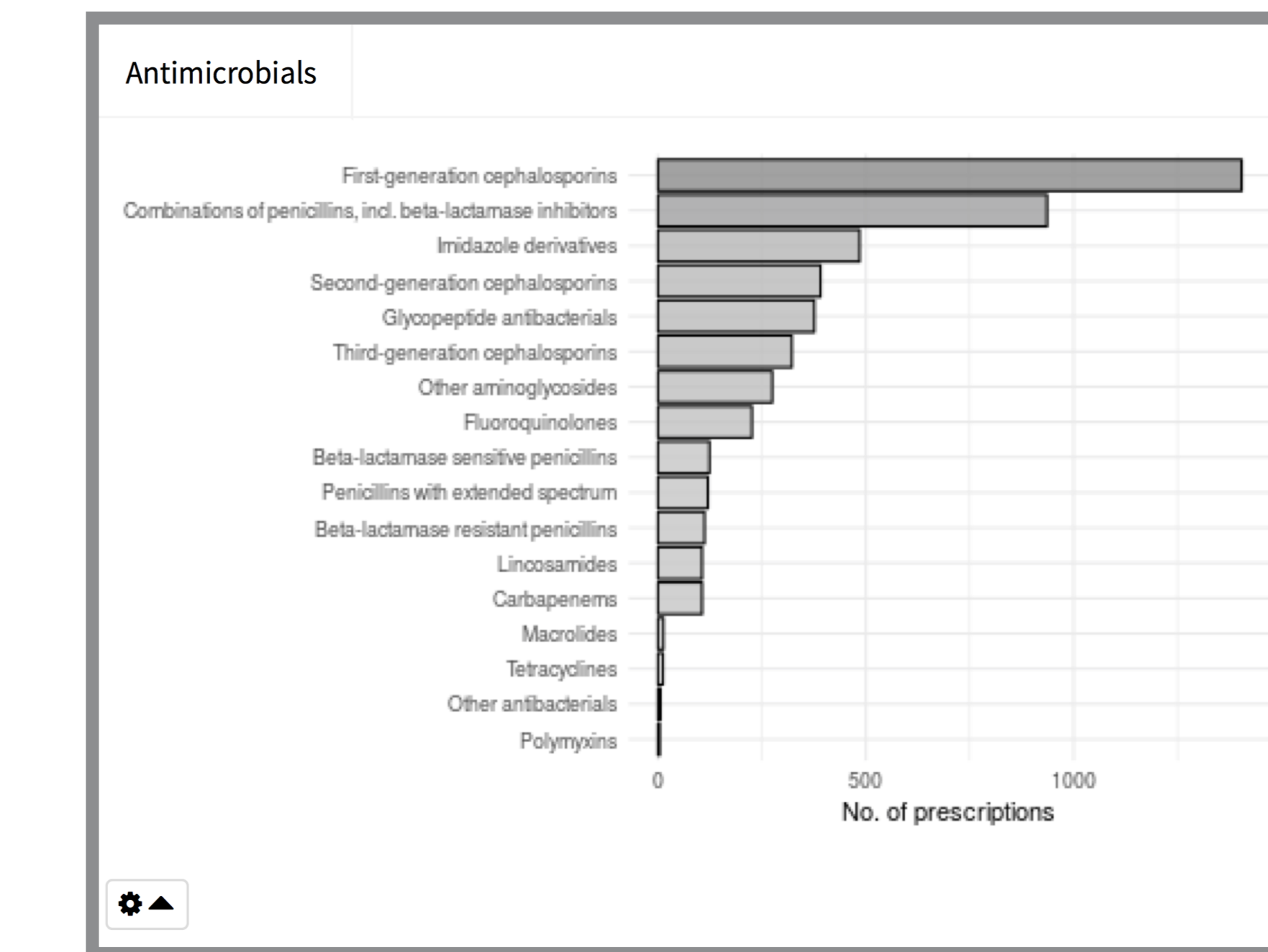
- Define patient group by 17 selection criteria (start of treatment, specialty, type of antimicrobials, year, admission route, and more)
- Find patients receiving antimicrobials, selected by their first prescription and filter or stratify by various groups.
- Check whether microbiological diagnostics have been performed in a given time.
- Analyse how long patients stay in hospital.
- Identify areas within the hospital that might benefit from **antimicrobial stewardship** interventions.

### Selection criteria

- Start of antimicrobials (in relation to start of admission)
- Minimum duration of treatment (days)
- Minimum duration of single prescription (days)
- Administration route
- First prescription only or all antimicrobials
- Groups of antimicrobials - 4th level WHO ATC
- Antimicrobials - 5th level of the WHO ATC
- Gender
- Age
- Year
- Specialty
- Minimum number of patients per sub-specialty
- Include only sub-specialty only
- Exclude sub-specialty
- Route of admission
- Type of diagnostics
- Days to first test (in relation to start of antimicrobials)

### RadaR - output examples

simulated data



- Christian Luz<sup>1</sup>
- Matthijs Berends<sup>1,2</sup>
- Jan-Willem Dik<sup>1</sup>
- Nienke Beerlage-de Jong<sup>3</sup>
- Mariëtte Lokate<sup>1</sup>
- Corinna Glasner<sup>1</sup>
- Bhanu Sinha<sup>1</sup>

<sup>1</sup> Department of Medical Microbiology, University Medical Center Groningen

<sup>2</sup> Certe Medical Diagnostics and Advice, Groningen

<sup>3</sup> Department of Psychology, Health and Technology, University of Twente

c.f.luz@umcg.nl

Find an online example of RadaR here:

