

The impact of an educational VR-module on the infection prevention and control knowledge, attitude and practice among medical students at Radboudumc.

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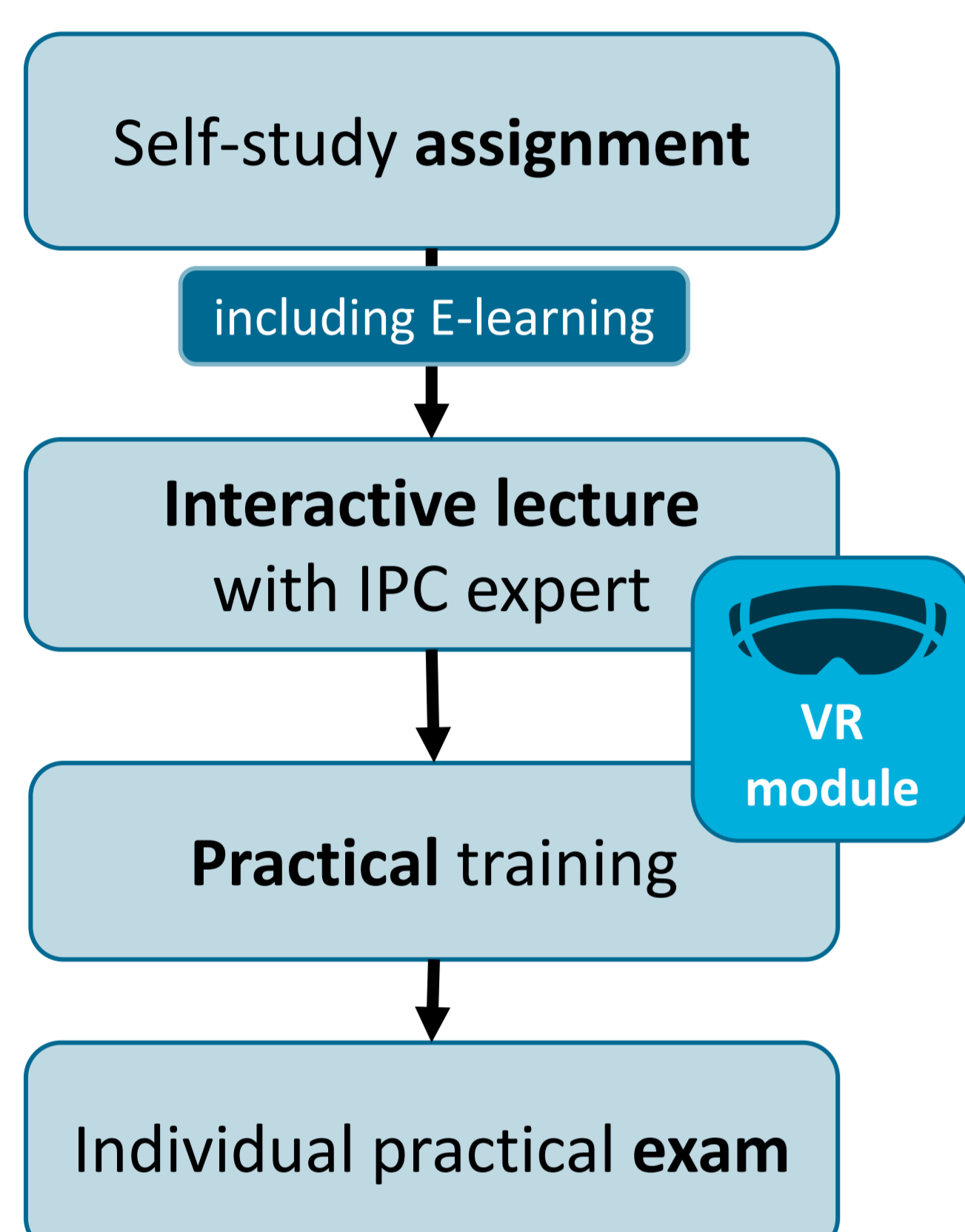
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Introduction

- In 2023, the infection prevention and control (IPC) team developed a **virtual reality (VR) module** with educational experts from the **Radboudumc Health Academy**
- **Target audience**
 - Medical Master students starting their clinical rotations
 - Healthcare professionals
- Virtual (VR) offers a safe learning environment
 - Situations that are difficult to access in regular education
 - Immersive experience → awareness consequences of choices

On this poster:

- Describe the **development process** of the VR-module
- **Assess impact** on IPC knowledge, attitude and practice



IPC education for all medical master students

Objectives of the VR IPC-module

After completion, participants:

- Are able to **deliver safe care** to a patient from an IPC perspective
- Have gained **confidence** in performing IPC measures in patient care
- Can **act adequately** in unforeseen IPC situations
- **Understand** the importance of IPC in providing safe patient care, considering the safety of the patient as well as their own.
- Get insight in the **consequences** that choices regarding IPC might have.

Assess impact

Questionnaire medical master students after IPC program:

- **Response** students regular IPC program 84% (37/44), first version VR module 52% (15/29), final version 68% (19/28)
- “VR-students” more often **correct knowledge answers** compared to the “regular IPC program students”.

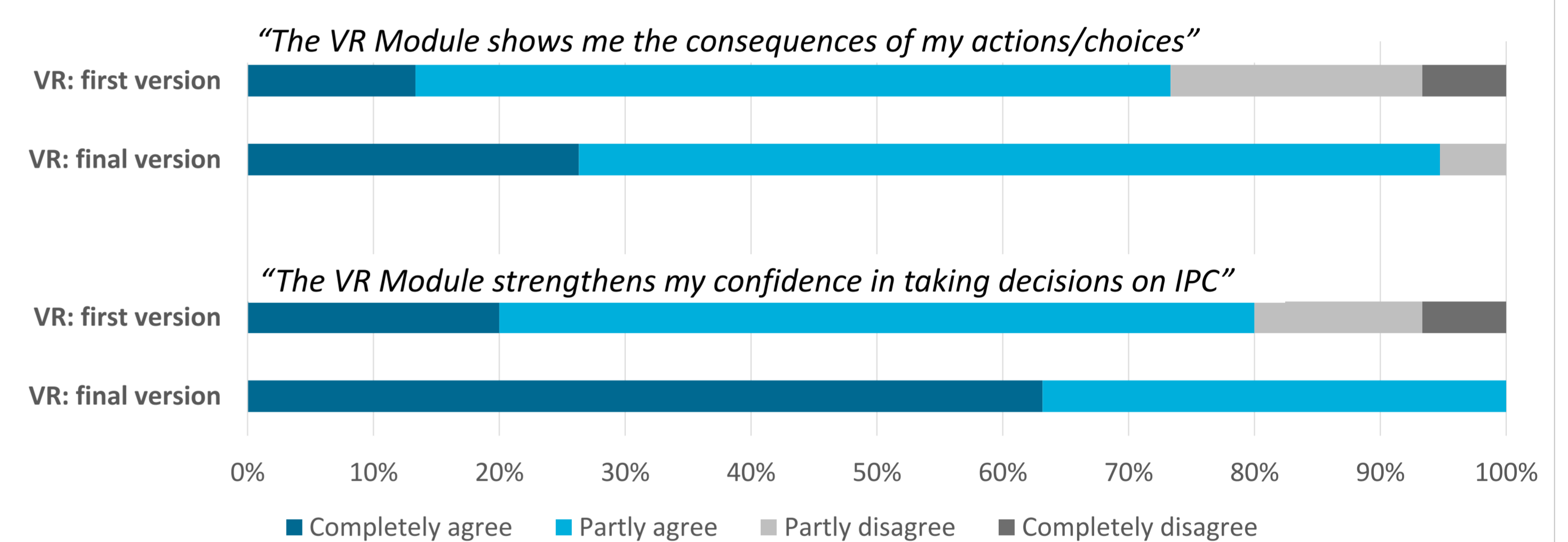
Medical students highly appreciate the IPC VR module:

- “Additional value within the current IPC education program”
 - First version: 67% (10/15), final version: 95% (18/19)
 - 47% “VR-module most contributing to IPC learning process”

Students valued

- interactive, **realistic setting**, incl consequences of their actions
- opportunity to **learn without distractions**, whilst fully relying on their own knowledge

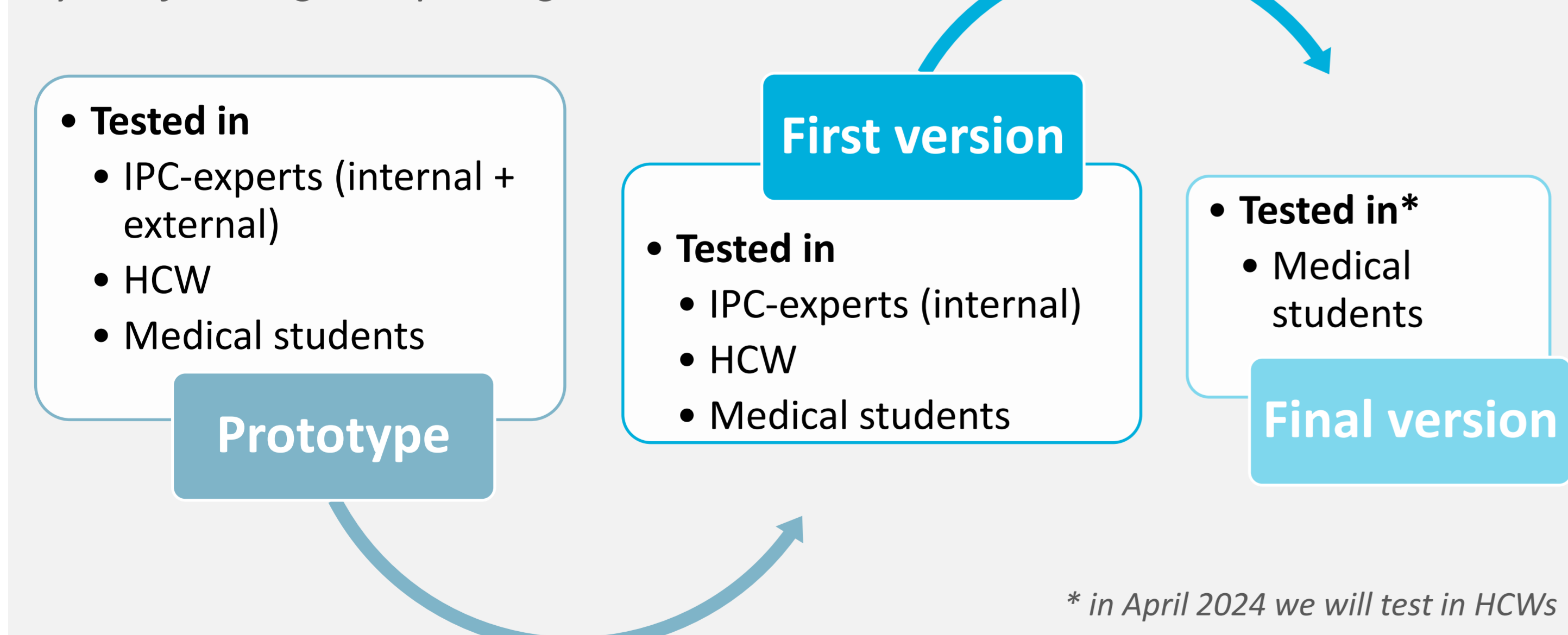
Medical students' agreement with statements on the first version (N=15) and the final version (N=19) of the VR-IPC Module.



Development of VR module

- Stakeholders + **intended target users** involved in development.
- **Cyclical design process**: prototype - first version - final version
- The VR Module was made in **CenarioVR®**
- **Success factors & tips**
 - Having an all-round team with dedicated time
 - Also make a web-based version available
 - Multidisciplinary collaboration and cyclical design
 - Make game not too long
 - Have interactive/gaming elements throughout

Cycle of testing & improving the VR-IPC Module



Conclusion

- VR module implemented in core curriculum medical master
- The **next implementation** phase:
 - within the Radboudumc clinical departments
 - Available for Netherlands via regional IPC network GAIN

Module is available for free through a “CC BY-NC-ND” license



Scan the QR-code for more information on how we developed our VR-module on IPC!

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