

Robotic reconstitution of cytostatic drugs and monoclonal antibodies: transforming aseptic drug compounding in hospital pharmacies

Geersing, T.H.

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Stellingen behorende bij het proefschrift

Robotic reconstitution of cytostatic drugs and monoclonal antibodies: transforming aseptic drug compounding in hospital pharmacies

- In hospital pharmacies, robotic reconstitution of drugs offers an effective solution to staffing shortages. This thesis
- 2. Robotic reconstitution results in accurate and precise cytostatic products. This Thesis
- Monoclonal antibodies and cytostatic drugs can be safely and simultaneously reconstituted by the same robotic system. This thesis
- Significant savings can be achieved through robotic reconstitution by reusing opened drug vials. This thesis
- 5. Robotic compounding enhances the microbiological stability of aseptically reconstituted intravenous solutions and enables the replacement of manual double-checks with automated system checks. Based on R. Lange et al. Report of the Robotization Working Group, 9 June 2024
- 6. More sustainable healthcare is achieved with compounding robots, which reduce medication waste, disposable material use, and cleanroom garment consumption.

 Based on Masini C et al. Am J Health Syst Pharm 2014; 71(7): 579-85
- 7. Reusing medication vials for multiple patients, facilitated by compounding robots, has the potential to enhance global medication availability by optimizing resources.

 **Based on Wilde S et al. Int J Pharm Compd 2023; 27(2): 154-9
- The integration of automation in healthcare requires a structured redefinition of roles and competencies of human staff. Based on Cerutti A et al. J Oncol Pharm Pract 2023; 29(7): 1599-612
- Robotics offers a viable solution to tackle the challenges posed by The Dutch National Care Agreement.
- The goal is not to acquire a compounding robot, but to use it to improve the quality of life for both our patients and our team. Based on Simon Sinek
- 11. Healthcare teams should aim to continually innovate and improve patient care, rather than simply meet current standards. *Based on Florence Nightingale*
- 12. The value of our lives is defined by what we do for others. Based on Albert Einstein

Tjerk Geersing

Leiden, 19 maart 2025