

# REAL-LIFE TEST OF A SECURE DEVICE FOR THE PREPARATION AND ADMINISTRATION OF ANTICANCER DRUGS: CHEMOLOCK® (ICU MEDICAL)

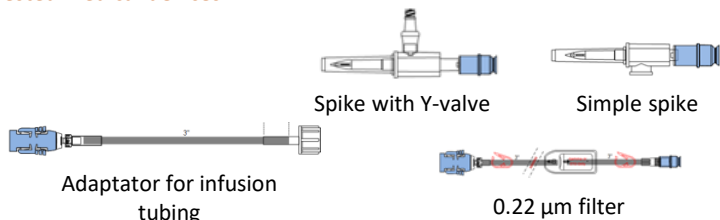
## INTRODUCTION

- ✓ Our unit prepares over **40,000 injectable anticancer drug preparations**, with an increasing part of robotic preparation
- ✓ Considering the limitations in human resources, we seek to **improve and accelerate our manual and robotic manufacturing processes**
- ✓ Our current infusion setups (short pipes and shafts) cause issues such as incomplete flow of bags, filter saturation and leaks
- ➔ The secure system for preparing and administering anticancer drugs, **Chemolock® (ICU Medical)**, could potentially meet our needs. Therefore, we have decided to assess the feasibility of its implementation in our facility.

## METHODS

The Chemolock® devices (ICU Medical) were used for two weeks in January 2023 for the manual preparation and administration of injectable anticancer pouches intended for the oncology day care unit.

**Tested medical devices:**



**Questionnaires submitted to hospital pharmacy practitioners (Q-PPH) and nurses (Q-IDE) after 7 days of use:**

### Q-PPH

- ✓ Ergonomics
- ✓ Preparation speed
- ✓ Ease of injection of active substance (AS)
- ✓ Homogenisation
- ✓ Safety of use

### Q-IDE

- ✓ Ergonomics
- ✓ Ease of connexion/disconnexion
- ✓ Filter purge
- ✓ Quality of materials
- ✓ Operating time
- ✓ Safety of use

Very good

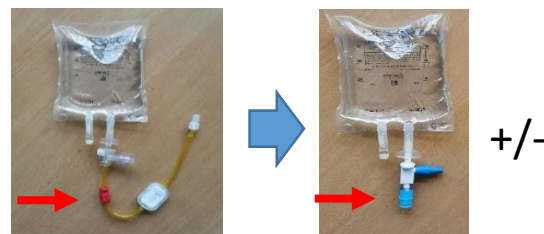
Good

Average

Bad

## RESULTS

PREPARATION



BEFORE

AFTER

✓ Same withdrawal mode

✓ No purge

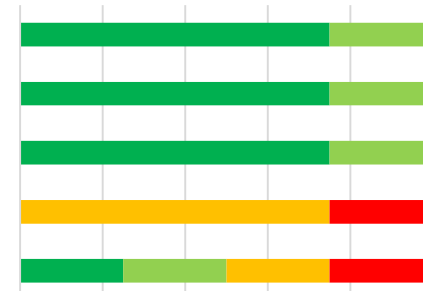
Ergonomics

Preparation speed

Safety of use

AS injection

Homogenization

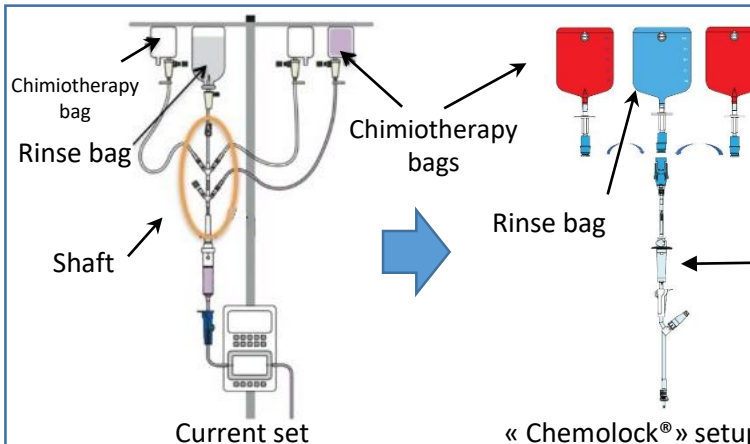


4 Q-PPH

Difficulties with Y-valve Chemoclave®

✓ Filter provided separately

ADMINISTRATION



Current set

« Chemolock® » setup

Chemotherapy and flush bags are alternatively clipped to the infusion tubing

Ergonomics  
Ease of connexion/disconnexion  
Quality of materials  
Operating time  
Safety of use

6 Q-IDE

100 %

Filter purge

The nurse has to purge the in-line filter in the Chemolock® setup

100 % of the nurses rate the « Chemolock® » setup as superior

## DISCUSSION

**At the nurses level:**

- ✓ Apprehension phase of 2-3 days to become familiar with the new setup > **importance of training** (presence of a laboratory representative)
- ✓ The « Chemolock® » setup was very well received, especially due to the **reduction in musculoskeletal problems** associated with tubing clamping/declamping
- ✓ Improved administration safety thanks to the dry connection and the audible 'click' during attachment

**At the hospital pharmacy practitioners level:**

- ✓ Overall satisfaction is good (75%) due to the elimination of purging = time-saving in preparation
- ✓ Some reservations were expressed regarding the Chemoclave® valve ➔ referencing Freeflex+® bags could be an option.

Cost +123%