



Singapore Healthcare Management 2021

# Reducing Needle Stick Injuries in the Satellite Laboratories

Fiona Chan, Loh Soo Ling, Ong Sin Wei, Ng Wai Yoong, Yeo Chin Pin  
Department of Clinical Pathology



## Background

- Rise in sharps injury incidents highlighted by Pathology Division's Laboratory Safety Committee. Satellite Laboratories alone, had 6 sharps injuries in 2017. In preceding years, only 2-3 incidents per year.
- Satellite laboratories consists of laboratories at National Cancer Centre, National Heart Centre, SGH Specialist Outpatient Clinics, and the 8 SingHealth Polyclinics
- Needle Stick Injuries (NSIs) account for all sharps injuries.

## Methodology

### Risk Assessments

All NSIs reviewed from 2014 to 2017.

Survey to gather feedbacks from all staff.

With results, team focused on two most common considerations singled out  
- orientation at phlebotomy station and  
- off-site phlebotomies.

### Facilities/ infrastructure; particularly the spatial orientation of the phlebotomist and patient

NSI risks increase, particularly if patient at the right side of the phlebotomist and arms may crossover when disposing used needles.



### Off-site Mobile Phlebotomy

Non-optimal site facilities which may hinder safe disposal of used needles

## Action Plans

**In 2018, 3 Control Types were employed: engineering control, administrative control and facilities improvements.**

- Phlebotomy counters configured such that patients are on left side of the phlebotomist
- Safety shield-protected needles for all off-site mobile phlebotomies



- Staff re-education: taught to place their non dominant hand below the table when discarding the used needle.

## Results

NSIs in Satellite Labs			
2017	2018	2019	2020
6	0	0	0

Implementation of safety controls has successfully reduced the number of NSIs to **Zero** cases in 2020.

## Conclusion

Team continues to monitor the effectiveness of the safety controls in ensuring a safe and NSI risk-free workplace in our satellite labs

