

## **Project Title**

Infection Control: One to Three

## **Project Lead and Members**

- Uma D/O Dena Dayalan
- Darren Teo
- Coleen Beck

## **Organisation(s) Involved**

KK Women's & Children's Hospital

## **Healthcare Family Group(s) Involved in this Project**

Healthcare Administration, Medical

## **Applicable Specialty or Discipline**

Operations, Facilities Development, Surgery, Urology, Paediatrics

## **Aims**

1. To comply with infection control by separating 'dirty' aspects of uroflow and urine disposal from 'clean' urodynamic procedures and counselling services for patients.
2. To eliminate urine stench in the procedure room and reduce risk of potential cross infections from bio-aerosols released when flushing urine down the sluice hopper.
3. To reduce delays and distractions during counselling sessions.

## **Background**

See poster appended/ below

## **Methods**

See poster appended/ below

## **Results**

See poster appended/ below

## **Conclusion**

See poster appended/ below

## **Project Category**

Care & Process Redesign, Build Environment, Space Planning, Facilities Management  
Improvement, Quality Improvement, Design Thinking

## **Keywords**

Infection Control, Cross Contamination, Zone Segregation

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# Infection Control: One to Three

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## Introduction:

Children's Surgery Centre (CSC) previously conducted uroflow, urodynamic, urine disposal and patient counselling all within room. This arrangement posed considerable safety as well as operational issues.

## Aims:

1. To comply with infection control by separating 'dirty' aspects of uroflow and urine disposal from 'clean' urodynamic procedures and counselling services for patients.
2. To eliminate urine stench in the procedure room and reduce risk of potential cross infections from bio-aerosols released when flushing urine down the sluice hopper.
3. To reduce delays and distractions during counselling sessions.

## Method:

### Plan

- Collected feedback from the user and infection control departments about the existing layout not suitable for their operations. Assessed the situation and explored options, including converting the play area to additional clinical space.

### Do

- Conducted Enterprise Risk Management; addressed site constraints; improved the layout by segregating 'clean' zone for counselling and urodynamic and 'dirty' zone for uroflow and urine disposal; & renovated the premises.

### Check

- Checked for compliance with infection control requirements and elimination of urine stench, by designing a customised lid.

### Action

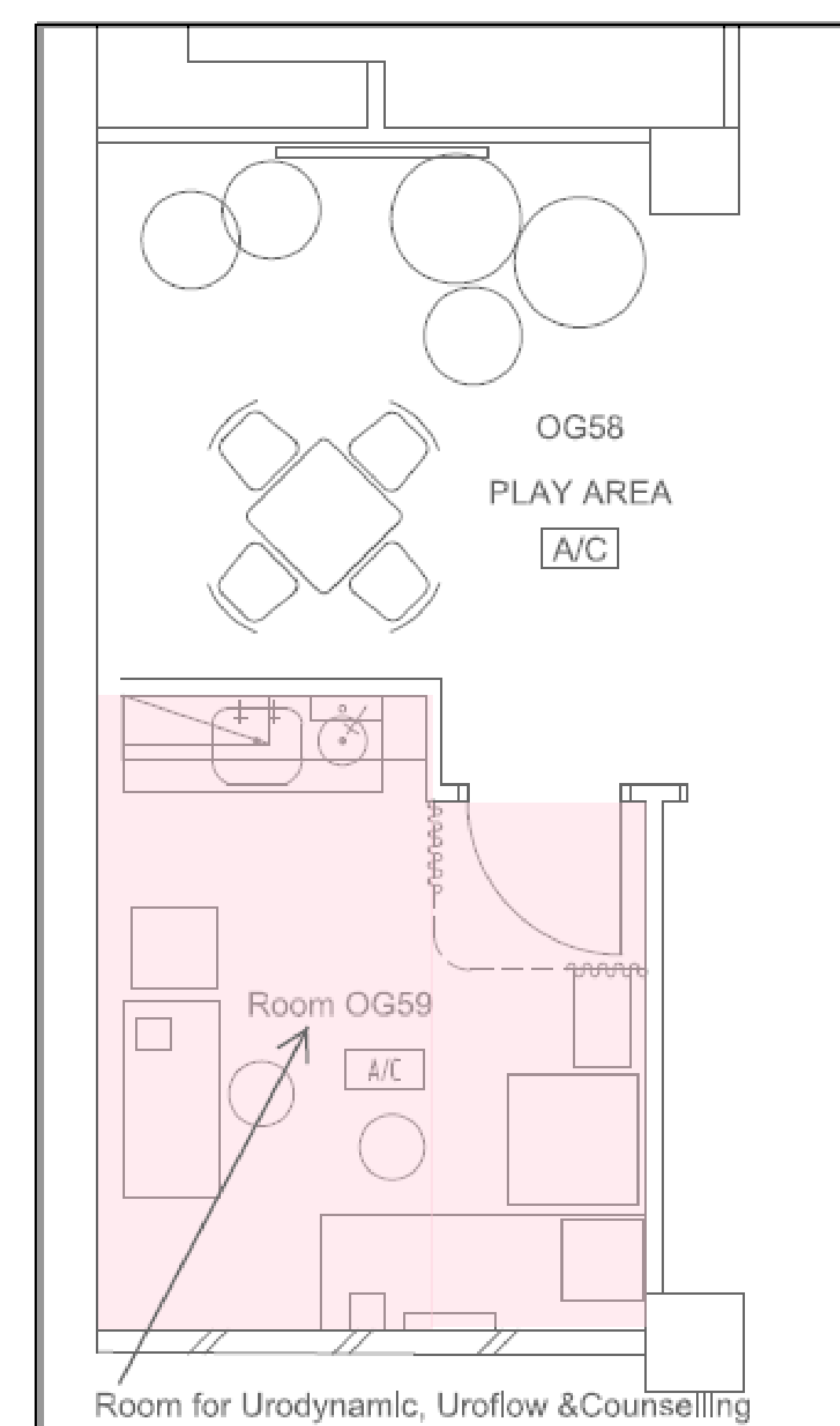
- Built separate rooms for counselling, urodynamics, as well as uroflow and urine disposal for proper segregation.
- Designed and installed a customised lid for the sluice hopper to eliminate urine stench and reduce risk of potential cross infection from urine aerosols during flushing.
- Advised users to keep the lid and the room door shut when flushing urine down the sluice hopper.

## Result:

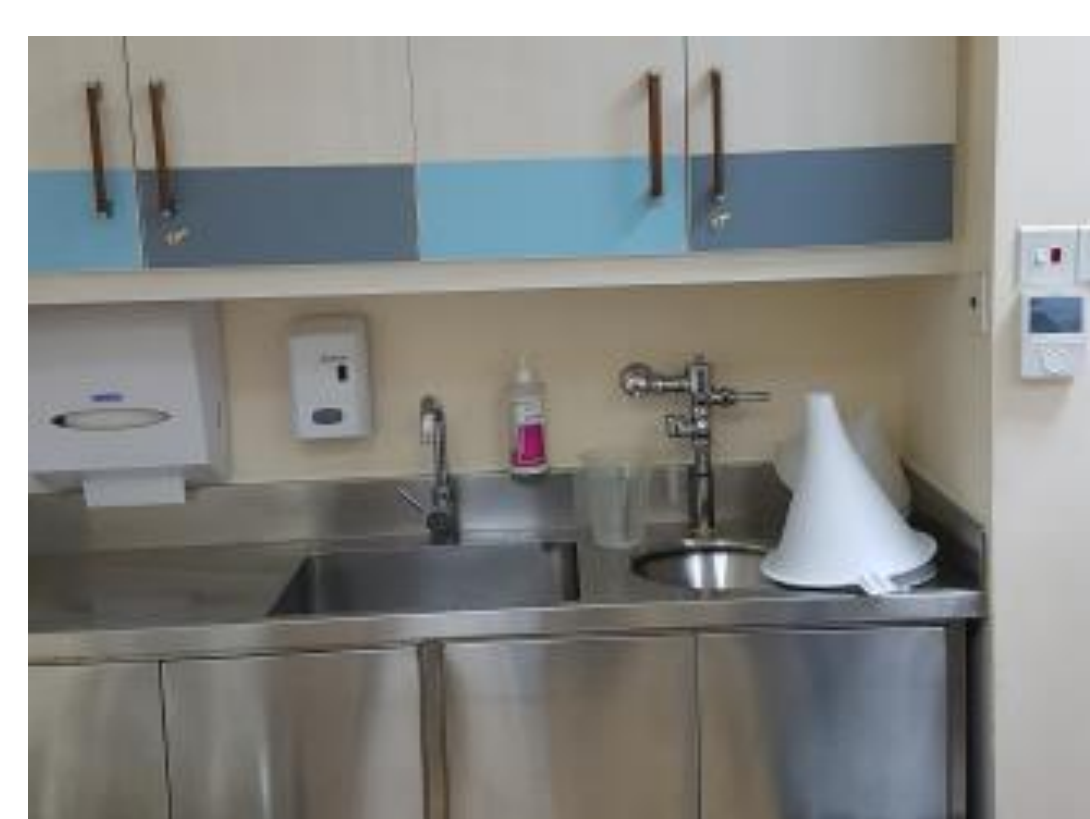
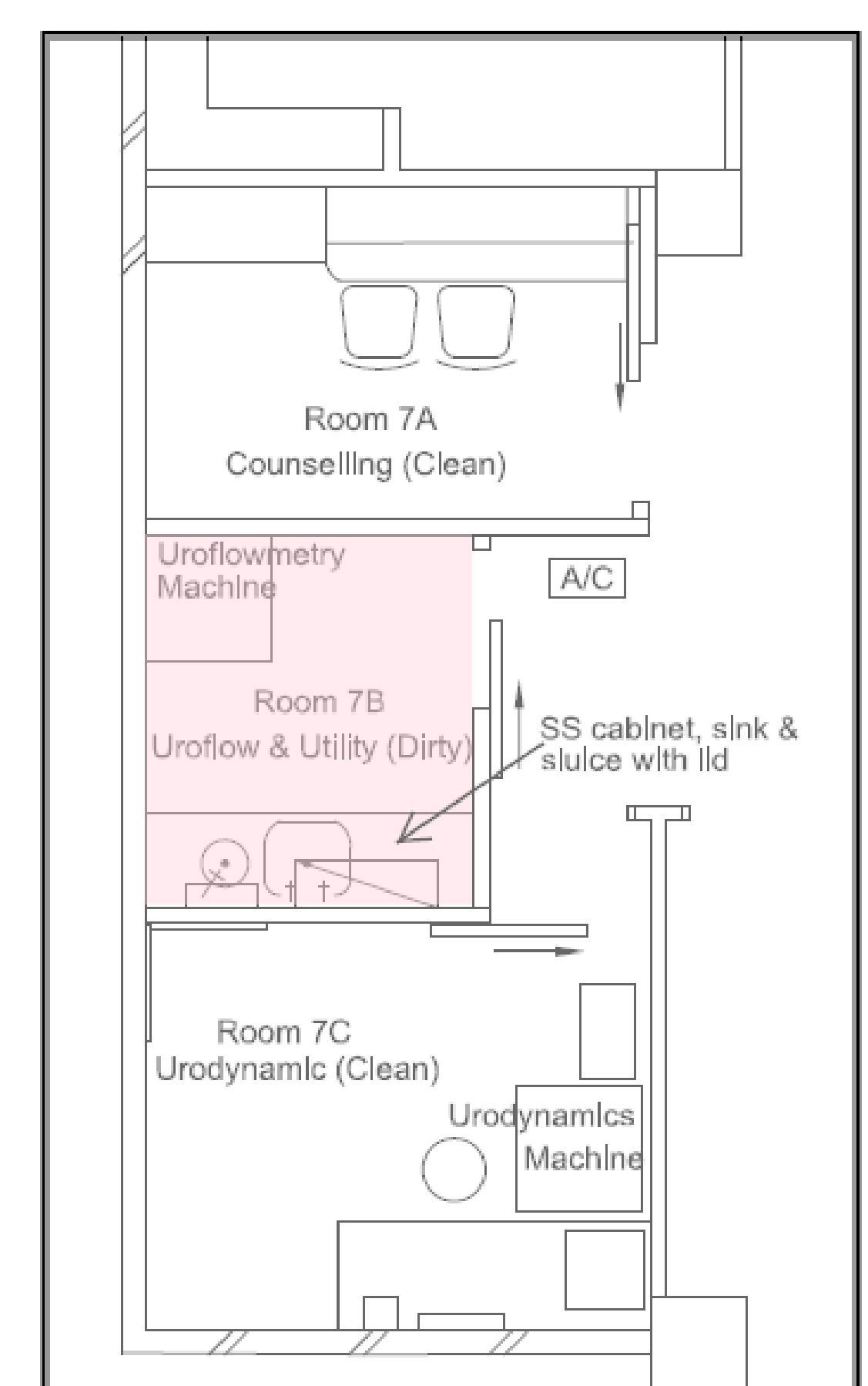
Improved safety, experience and efficiency at CSC by:

1. Reconfigured the existing play area and the single room used for uroflow, urodynamic, urine disposal and counselling into three rooms: a 'clean' counselling room, a 'clean' urodynamic room, and a 'dirty' room for uroflow and urine disposal.
2. Safeguarded patient privacy and confidentiality by providing separate rooms.
3. Enabled counselling sessions to proceed without interruptions, delays and distractions from urodynamic and uroflow studies and urine disposal in adjoining rooms.
4. Eliminated urine stench and reduced risk of potential cross infections from urine aerosols by shutting the room door and sluice-hopper lid when flushing urine.

## Before



## After



## Conclusion:

1. After renovation, CSC not only complies with infection control requirements but also provides better privacy and confidentiality, as well as patient experience.
2. Counselling is also more efficiently conducted with demarcated area.
3. Finally, other clinical areas in the hospital that want to add lids to their sluice hoppers can use or adapt the prototype designed and installed at the CSC.