

#### **Translational Simulation**

Fourth Edition 2022

# **CONTACT US**

Gandel Simulation Service in partnership with The University of Melbourne

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thewomens.org.au





# Gandel Simulation Service

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# **ABOUT US**

The Gandel Simulation Service was established at The Royal Women's Hospital in 2019 with funding from Gandel Philanthropy and The University of Melbourne Medical School.

It is a translational simulation service conducting simulation in situ or in the real space with real teams. It uses simulation for education and testing of hospital processes and pathways for all staff. This helps nurses, midwives, doctors, allied health professionals and all administrative and support staff at the Women's to prepare for scenarios they may encounter in both clinical and non-clinical settings. Our goal is to use translational simulation to improve teamwork, coordination, patient outcomes, and safety at the Women's.

The service uses simulation to test procedures, protocols and prospective new equipment at the Women's. A comprehensive research and evlauation program is a key focus of the service to ensure best practice and sustainability.

Our priority is helping everyone at the Women's to do their work better together and make work as imagined, work as done.



# OUR TEAM 2022

#### Lead

Manager Admin Officer Parkville Precinct Lead Liaison Lead Midwifery Clinical Educator Midwifery / Nurse Clinical Educator Neonatal Educator Research Assistant Dr Rebecca Szabo Nova Barrios Aishwarya Mohan Dr Kara Allen Nova Barrios Sarah Dick Dr Marta Thio Dr Eve Purdy



Photo from 2020 Bec Szabo, Kara Allen, Tracey Hynes, Nova Barrios, Marta Thio, Aishwarya Mohan

Previous team members - Project manager 2019-2022 Tracey Hynes, Midwifery educator 2020 Jacqueline Gheradin, 2020-2021 Simulation HMO Matthew Daly

### **OUR PARTNERS**

#### Gandel Foundation

- The University of Melbourne Medical School
- Department of Critical Care
- Department of Medical Education
- Department of Obstetrics and Gynaecology Victorian Maternity Services Education Program Bond University Translational Simulation Collaborativ

#### DOING OUR WORK BETTER TOGETHER



#### WHAT IS SIMULATION?

"Simulation is a technique - not a technology - to replace or amplify real experiences with guided experiences that evoke or replicate substantial aspects of the real world in a fully interactive manner." (Gaba 2004, BMJ Quality and Safety)

Simulation-based education or SBE in healthcare is widely used in teritary and postgraduate education and even with the community for life support training. Simulation has a wide range of applications. Using simulation to improve safety require full integration of its applications into the routine structures and practices of health care.

The diverse applications of simulation in healthcare can be categorised by 11 dimensions (Gaba 2004):

- 1. aims and purposes of the simulation activity;
- 2. unit of participation;
- 3. experience level of participants;
- 4. healthcare domain
- 5. professional discipline of participants;
- 6. type of knowledge, skill, attitudes, or behaviours addressed;
- 7. the simulated patient's age
- 8. technology applicable or required;
- 9. site of simulation;
- 10. extent of direct participation;
- 11. method of feedback used

Gaba D The future vision of simulation in healthcare BMJ Quality and Safety 2004 http://dx.doi.org/10.1136/qshc.2004.009878

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# WHAT IS TRANSLATIONAL SIMULATION?

"The term translational simulation describes healthcare simulation focused directly on improving patient care and healthcare systems, through diagnosing safety and performance issues and delivering simulation-based intervention, irrespective of the location, modality or content of the simulation.

It offers a functional alignment with quality improvement activities in healthcare institutions, while encompassing those educational interventions targeting practice behavior or patient outcomes.

Translational simulation requires close relationships with clinical governance and quality improvement services in healthcare institutions and can be used effectively as part of comprehensive health service improvement strategies.

Translational simulation activities encompass modalities, locations and delivery methods that address the gap between simulation education and patient out<u>comes.</u>



Brazil, V. Translational simulation: not 'where?' but 'why?' A functional view of in situ simulation. Adv Simul 2, 20 (2017). https://doi.org/10.1186/s41077-017-0052-3

#### WHAT IS IN SITU SIMULATION

In situ simulation takes place in the real patient care setting /environment such as birth centre, ED, wards, theatres to achieve a high level of realism and to test the environment to find latent threats. This type of simulation is particularly useful to ensure what is learned works in the actual space care is provided with the actual teams that will be providing it rather than in a simulation centre or lab where things may be quite different.

#### WHY IN SITU SIMULATION?

In situ simulation is valuable to assess, troubleshoot, or develop new system processes.

#### **APPLICATIONS**

- examine work flow
- improve culture
- teamwork and communication
- orient staff to new policies and procedures
- assess the efficacy of a system and identify gaps
- practice rare events
- co-design work flow / processes

#### TRANSLATIONAL SIMULATION



# **RESEARCH AND EVALUATION**

We have a growing research and evaluation program, collaborating with University of Melbourne and Bond University as well as others examining the effectiveness of a translational simulation service across the Women's and Parkville precinct. Key research areas include:

- teamwork and culture
- diversity, equity, inclusion
- maternity and newborn safety
- gynaecology surgical skills
- operating theatre teams
- anaesthesia and emergency teams
- obstetric trauma care
- impact on quality and safety
- procurement decisions
- codesign of pathways, processes and spaces
- sustainability and cost effectiveness

# SIMULATION CORE BUSINESS



Maternity emergency training



Newborn emergency training



Medical Emergency Team training



Operating theatre team training



Surgical and other skills training



2020 IN SITU SIMULATION IN OT WITH MANNEQUIN TO TEST MTP WORKFLOW FOR EMR IMPLEMENTATION

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# ADDITIONAL 2020 SIMULATION ACTIVITIES



Simulation with potential new defibrillator models to decide which type best to procure



#### Process testing for EMR implementation



#### OVID-19 Simulation strategy

- co-design pathways/processes
- educate/embed processes
- Operating theatre
- Emergency department
- Birth Centre
- NICU



#### 2021 IN SITU SIMULATION IN RMH OT TO CREATE, TEST AND EMBED CAESAREAN SECTION PATHWAY FOR A RMH COVID PATIENT

#### WORK AS DONE NOT IMAGINED

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In everything we do, we value courage, passion, discovery and respect.