



Team training makes for smoother, safer surgery

Safe surgery demands skilled teamwork and expert communication to ensure the intended outcomes are achieved. Team training makes for smoother, safer surgery and fewer problems for surgical teams and patients.

The University of Auckland has developed the Multidisciplinary Operating Room Simulation (MORSim) programme to improve communication and teamwork in the operating room (OR). MORSim is being implemented nationally, with funding by ACC and collaborative support from the Health Quality and Safety Commission.

THE PILOT

The complexity of modern surgery requires a whole team approach to achieve the best outcomes for patients. Improving communication and co-ordination in operating room teams has considerable potential to reduce unintended treatment injury.

Highly realistic simulation is an established way to undertake team training, but traditionally focuses on one discipline at a time. MORSim provides simulated activities to engage and challenge all members of the OR team – surgeons, anaesthetists, anaesthetic technicians and nurses.

The MORSim team ran a pilot of 23 full-day courses in Auckland. Challenging scenarios were integrated with expertly facilitated debriefing sessions, presentations and discussions focused on team function and communication, and awareness of the roles and perspectives of other team members.

THE RESULTS

- Information sharing improved, even in teams that usually worked together.
- Support for surgeons improved when the whole team knew the plan.
- Nurses and anaesthetic assistants gained confidence to speak up with information important managing the patient.
- Improved communication skills were taken back to the workplace.

FEEDBACK FROM PARTICIPANTS

"Make this a course for theatre staff to attend yearly"
-Anaesthetist

"This course should be compulsory as part of annual update" -Nurse
"We all work in our own little areas...it is very important that we



"do the cross-pollination or cross-communication to make sure that we get that overview of the whole picture" - Senior Surgeon

FOLLOW UP – 6 MONTHS LATER

Observation of over 400 operations showed:

- Improved briefings of the whole team about the surgical plan.
- Improved information sharing among the different professional groups.
- Participants reporting better use the WHO Surgical Safety Checklist.
- Increased willingness to speak up.
- More structured communications during call-outs and handover.

THE NEXT STEPS

The ACC, HQSC and the University of Auckland are collaborating in a five-year plan to:

- Establish a locally led simulation-based OR team training programme in each district health board (DHB).
- Provide simulators and surgical models where necessary.
- Provide ongoing instructor training, accreditation, quality improvement and development processes.
- Build capacity for simulation training for multi-disciplinary teams in other acute care areas across the DHBs.

We want every surgeon, anaesthetists, OR nurse and anaesthetic technician to receive this exciting and effective training in effective communication and teamwork. New Zealand's healthcare is already very good by international standards, but as in other countries, treatment injury is still unacceptably common. Sporting teams use coaching to excel. Our patients need us to do this too.

The MORSim team

The project team has many years of experience in developing and delivering simulation-based training for OR teams.

Associate Professor Dr Jennifer Weller

MORSim Project Director

Jennifer has expertise in medical education, an international reputation in simulation-based education, and has established an online master's programme in clinical education. She is head of the Centre for Medical and Health Sciences Education at the University of Auckland and a specialist anaesthetist at Auckland City Hospital.

Kaylene Henderson, Course Coordinator and Developer

Kaylene has had a long involvement with simulation planning and training and recently worked with A/Prof Weller on a nationwide project for the HQSC Safe Surgery NZ programme.

Professor Ian Civil, Professor of Surgery, Trauma and Vascular Surgeon.

Ian is a past President of the Royal Australasian College of Surgeons with extensive involvement in postgraduate teaching and is Clinical Leader for the Health Quality and Safety Commission's Safe Surgery NZ programme.

Professor Alan Merry, Professor of Anaesthesia

Works with senior management and senior clinicians in DHBs and stakeholders including the Health Safety and Quality Commission (HQSC), ACC, the Ministry of Health, medical and nursing colleges and patient advocacy groups to embed the concept of ongoing simulation-based training for teams to improve patient safety.

Dr Jane Torrie, Director, Simulation Centre for Patient Safety, University of Auckland, and Senior Consultant Anaesthetist

Jane has extensive experience and research on teamwork with multi-disciplinary healthcare teams. Jane will coordinate the development and testing of new scenarios in orthopaedic, urology, plastics, and ENT surgical teams, develop the resource package for delivering scenarios and oversees production of supporting educational materials.

Dr Sandy Garden, Specialist anaesthetist at Wellington Regional Hospital and an adjunct Professor in the School of Biological Sciences at Victoria University of Wellington.

Sandy has more than 20 years involvement with the use of high fidelity simulation in patient safety education.

Dr Craig Webster, Senior Lecturer with the Centre for Medical and Health Sciences Education and the Department of Anaesthesiology at the University of Auckland.

Craig has extensive experience in clinical and human factors research projects, including compliance with safety initiatives and patient safety.

Dr David Cumin, Senior lecturer in the department of Anaesthesiology

David was heavily involved in all aspects of the MORSim pilot work and is primarily engaged with the research component of this MORSim implementation project. He brings to the team a background in engineering, simulation, and data analysis.



Left to right: Professor Alan Merry, Professor Ian Civil, Dr Jane Torrie, Associate Professor Jennifer Weller, Dr Craig Webster, Kaylene Henderson, Dr David Cumin

Carmen Skilton, Project Administrator for MORSim

Carmen has a background in psychology and is keenly interested in human factors research. Carmen has been working in various research projects including the data analysis from the original MORSim pilot study. Her role will centre on research administration and logistics.

PARTNERS

MORSim is funded by ACC as part of its strategy to re-invest in the health sector and deliver better patient surgical outcomes by reducing avoidable harm.

MORSim was built by the University of Auckland to develop the established link between teamwork and avoidable patient harm. MORSim aims to implement this course across New Zealand hospitals to significantly reduce treatment injury claims.

MORSim will build on the HQSC team training intervention to improve patient safety. The university has an existing contract with HQSC to deliver team training and implementation of the paperless WHO Surgical Safety Checklist.

Auckland UniServices is providing MORSim with contract and project management services. UniServices has extensive global experience with multi-partner projects in the health sector.

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