



Singapore
General Hospital
SingHealth

Advanced Practice Nursing in Singapore – Clinical Outcomes



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• service
• education
• research

What is an Outcome?

- ❖ That which represents the goal of all treatments: “to make the patient better”.

(Fries 1993)

- ❖ Outcomes in clinical practice provide the mechanism by which the health care provider, the patient, the public, and the payer are able to assess the end results of care and its effect upon the health of the patient and society.

(Anderson & Weinstein, 1994)

Florence Nightingale

- ❖ Evaluating the quality of nursing practice began when Florence Nightingale identified nursing's role in health care quality and began to measure patient outcomes
- ❖ She used statistical methods to generate reports correlating patient outcomes to environmental conditions



(Dossey, 2005; Nightingale, 1859/1946)

Categories of Outcomes

- ❖ Care-related – outcomes that result from health care treatments or interventions
 - E.g. weight changes, clinical symptom changes such as dyspnoea or pain
- ❖ Patient-related – outcomes which impact patient perceptions, preferences or knowledge
 - Eg. Patient satisfaction, knowledge, quality of life
- ❖ Performance related – outcomes which reflect the quality of care provided by a health care provider
 - Eg. Technical quality, interpersonal skills

Jennings et. al, 1993

Patient Care Outcomes



Quality Commitment

Best Outcome,
Best Experience

Clinical Quality

Assure safe and
integrated care delivery

Service Quality

Create seamless services
Excel in personalised care

Patient and Staff Safety

Quality Management Systems

JCI Magnet® ISO 9001 ISO 14001 OHSAS 18001
BCM CAP SINGLAS ISO22000 SQC PDS

Quality Culture

Quality Behaviour Standards - 5Cs

Compassion, Commitment, Communication, Collaboration, Consistency

Quality Improvement, Staff Engagement and Development

Core Values

Commitment, Collegiality, Compassion, Respect,
Integrity, Openness, Professionalism



Advanced Practice Nursing

Advanced Practice Roles

- ❖ Certified Registered Nurse Anaesthaetist
- ❖ Certified nurse-midwives
- ❖ Clinical Nurse Specialist
- ❖ Nurse Practitioners
- ❖ Advance Practice Nurse Case Managers
- ❖ In Singapore, APN is a combination of Nurse Practitioner and Clinical Nurse Specialist role

Benefits of APNs

- ❖ Improved Quality Indicators
 - Greater patient independence, promotion of health, adjustment to illness, stress management, functional status, compliance with treatment, patient satisfaction, reduced emergency room visits and re-hospitalisations
- ❖ Positive Patient Outcomes
- ❖ Reduced Healthcare Cost

Benefits of APNs

- ❖ Complement medical care
- ❖ Establish a clear clinical track
- ❖ Increase job satisfaction
- ❖ Boost recruitment and retention of nurses
- ❖ Improve professional image of nursing

Outcomes of APNs in SGH

- ❖ Reduce Readmission rate within 72 hours - Orthopaedic
 - From 21% to less than 5%
 - All patients discharged are advised to call the APN before visiting the DEM
 - Patients are screened and assessed over the phone
 - Patients are scheduled to visit APN the next working day for wound / pain related complains
 - Patients who visits the GPs and are referred to the DEM are also advised to call the APN
 - If assessed to be in need for urgent care, patient is admitted directly to the ward (APN has admission and discharge rights)

Outcomes of APNs in SGH

❖ Spine Coordinated Clinical Pathway

- Coordinated Clinical Pathways are usually driven by the surgeons
- New pathway driven by APN: Cervical Spine launched week of 13 July 2009
- Current pathways in spine reviewed by APN
 - Length of Stay reduced from 7 days to 5 Days for patients after lumbar fusion
 - Nursing staff skill set enhanced
 - All patients ambulated on the 1st POD. Nurses trained to assess and ambulate patients over the week when there is no PT
 - Cervical spine surgery – LOS from 5 to 2 days (APN follow-up with phone call after 72 hours)

Outcomes of APNs in SGH

❖ Staff Training

- Clinical teaching rounds
- Intermediate Care Area Nursing (ICA) Course - to upgrade all High Dependency areas into ICA status
- Mass Casualty course
- Patient Simulation & Crisis Handling Workshop
- Duke-NUS - Practical skills teaching
- Advanced Health Assessment workshop
- Problem Based Learning
- Adjunct lecturers in Universities (e.g. NUS, Curtin)

Outcomes of APNs in SGH

- ❖ Conduct research and systematic reviews and facilitate the clinical staff in research/systematic reviews
 - Change in patient care practice from research and systematic reviews
 - Pre-Emptive Analgesia
 - All patients undergoing elective orthopaedic surgery are administered preoperative analgesia two hours prior to induction including patients coming for Same Day Admission Surgery
 - Significant decrease in VAS scores and use of post-operative opioids consumption
 - Significant reduction in the rate of postoperative fever

Outcomes of APNs in SGH

- ❖ Change in patient care practice from research and systematic reviews
 - The Effect of Unrestricted Fluid Versus Standard Preoperative Fasting on Gastric Volume and pH: A Systematic Review
 - There was **no evidence** that patients given fluids **two or three hours preoperatively** were at increased risk of aspiration / regurgitation as measured by their gastric volume and pH.
 - The gastric volume was **not significantly lower** among patients that were administered fluids during the preoperative period, than those who followed standard fast.
 - New Fasting guidelines were developed allowing fluids 2-3 hours pre-op for elective cases

Outcomes of APNs in SGH

❖ Nurse-led clinic

- Pelvic Floor Disorder Service- an outpatient clinic as tri-party of Colorectal Surgery, O & G and Urology
 - Collaborative clinic- Surgeons and APN follow-up on patients together
 - Nurse-Led Clinic- APN sees patients
 - At monthly Joint Clinic, case summaries and presentation of cases to 3 specialty doctors to reach consensus to treat patients

Outcomes of APNs in SGH

❖ Nurse-led clinic

- Orthopaedic clinic (APN led on Tues and Fri)
- Postoperative orthopaedic clinic
 - (1 month visit see Surgeon, 3rd, 6th & 1 year see APN, 2nd Year Surgeon)
 - Reduce post-operative SOC visits
 - Patients are generally requested for follow-up at clinics at two weeks post spinal instrumentation clinic. Surgeon reviews the wound and manages pain and its related complication
 - To reduce patient's visit at SOC, Initiated to work with the General Practitioners (GP) to educate them on spinal surgery wound management and APN driven GP wound management clinic

Outcomes of APNs in SGH

❖ Nurse-led clinic

- PEG Tube Clinic - Follow-up on difficult small-bore Nasogastric and PEG Tube; monitoring for home Parenteral Nutrition patients
- Rehabilitation and IBD Clinic – Physician collaboration
- APN Pre-operative Anaesthesia - Assessing patients before surgery. Optimising patient's medical condition to minimise on table cancellation.
- Follow-up for neurological patients
- Drug monitoring for Rheumatology patients
- Hypnotherapy clinic

Outcomes of APNs in SGH

❖ Nurse-led homecare services

- 3 months follow up of complex medical patients with regular telephone surveillance and home visits
- Leads a team of 4 nurses, conducts training and teaching for Integrated Care Nurses
- Conducts daily multidiscipline discussion with Family Medicine & Continuing Care (FMCC) Consultant and Medical Social Worker to discuss patients plan of care
- Directs patients with early signs of complications to FMCC Early Review Clinic or FMCC-GP network
- Seeks to change patients/ caregivers health seeking behavior by empowering patients with knowledge and skills through education
- Collaborate with community partners (e.g. Thye Hua Kuan Case Managers and TOUCH)

Outcomes of APNs in SGH

❖ In-patient role

- Continuity of care
- Long term patients are better supported



“Without good and careful nursing many must suffer greatly, and probably perish, that might have been restored to health and comfort, and become useful to themselves, their families, and the public, for many years after.”

Benjamin Franklin (1751)



PATIENTS. AT THE HE[♥]RT OF ALL WE DO.



Thank you