ROLE OF CLINICAL NURSE SPECIALIST IN ANAESTHESIA

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CNS in Pain Management

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CLINICAL NURSE SPECIALISTS (CNS)

- Clinical Nurse Specialists (CNS) are registered nurses who have graduate preparation (Master's or Doctorate) in nursing.

- Clinical Nurse Specialists are expert clinicians in a specialised area of nursing practice. The specialty may be defined in terms of :
  - **Population** (e.g. pediatrics, geriatrics, women's health)
  - **Setting** (e.g. critical care, accident & emergency room)
  - **Disease or Medical Subspecialty** (e.g. diabetes, oncology)
  - **Type of Care** (e.g. psychiatric, rehabilitation)
  - **Type of Problem** (e.g. pain, wound)

CNS (CONT)

- Clinical Nurse Specialists practice in a wide variety of health care settings
- In addition to providing direct patient care, Clinical Nurse Specialists influence care outcomes by providing expert consultation for nursing staffs and by implementing improvements in health care delivery systems
- Clinical Nurse Specialist practice integrates nursing practice, which focuses on assisting patients in the prevention or resolution of illness, with medical diagnosis and treatment of disease, injury and disability

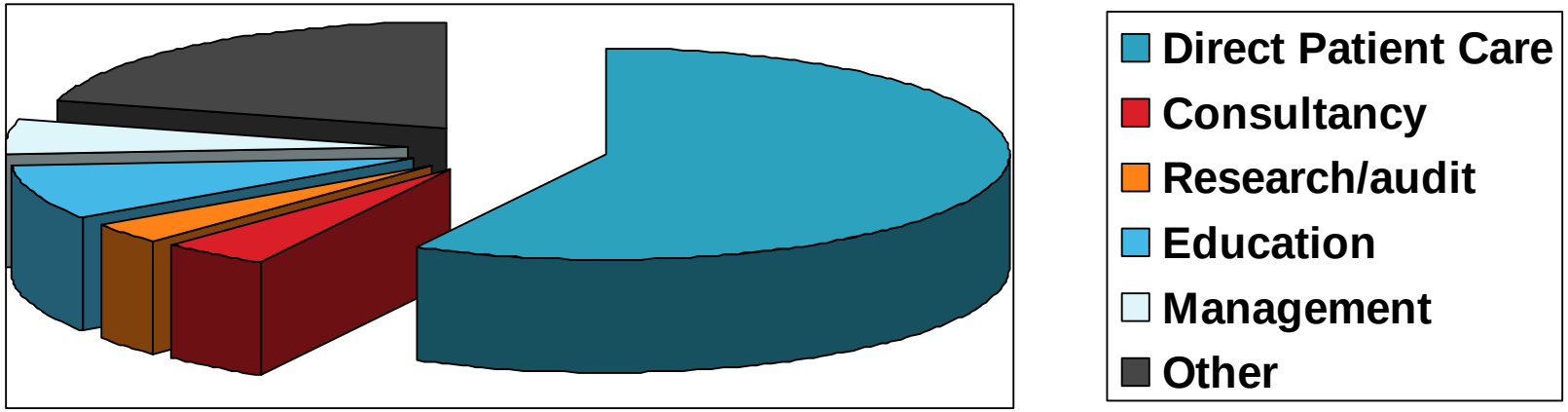
Who We Are (continued)

- CNS practice is conceptualised across three spheres in which the CNS exerts influence:
  - Patients/clients
  - Nursing standards and nursing personnel
  - Systems
- Expert nursing practice in the patient sphere provides the underpinnings for CNS practice.

Selected Outcomes of CNS Practice

- Reduced Medical Complications in Hospitalised Patients
- Reduced Hospital Costs and Length of Stay
- Improved Pain Management Practices
- Increased Patient Satisfaction with Nursing Care
- Increase Professional Development of Nurses
- Reduced Frequency of Emergency Room Visits

What nurses spent their time on



Acute pain services

- Developed from a joint working party document in 1990 by Surgeons and Anaesthetists
- Multi-disciplinary structure – CNS, Anaesthetist, physio, junior anaesthetists
- Daily ward rounds
- Staff education
- Manage sophisticated analgesia systems on general wards (PCA and Epidural infusions)
- Employ the multi-model approach/the WHO analgesic ladder

The role of the nurse specialist in:-

- Pain management
- The intensive care out-reach team
- The anaesthetic pre-assessment clinic
- The Post Anaesthetic Recovery unit

Reasons

- Humanitarian
- Avoidance of patho-physiological
- Consequences of untreated pain
- Avoidance of chronicity
- Financial

Roles of the nurse in the team

- Daily visits to all case load
- Stepping down analgesia from systems to orals
- Drug manipulation – nurse prescribing of opioids
- Advising re complex patients
  - High opioid users – oncology
  - Intravenous drug users

Role of the nurse cont

- Audit of service
- Participate in research
- Education of
  - Ward nurses
  - Junior surgical doctors
  - Junior anaesthetists
  - Patients/relatives
  - Teaching in university

The Intensive Care Outreach Team

Patient Emergency Response Team

PERT

Audit findings

- Mortality rates in patients who were managed less than optimally prior to admission to intensive care was sinificantly increase from 42% to 65% ($p<0.0001$

- Detectable indicators were found to be present for up to a week prior to admission

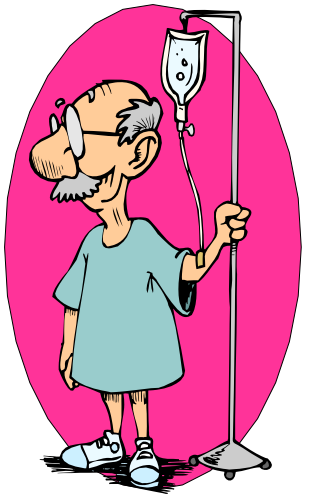
McGloin, Adam, Singer 1999

Definition of sub-optimal care

- Non recognition of abnormality
- Inappropriate treatment
- Concerns recorded by nursing or medical staff but no appropriate action taken

PERT Team members

- Intensive Care Nurse
- Anaesthetist
- ICU Consultant
- Physiotherapist
- Night CNS
- Physiotherapist (on call)



Objectives of the Team

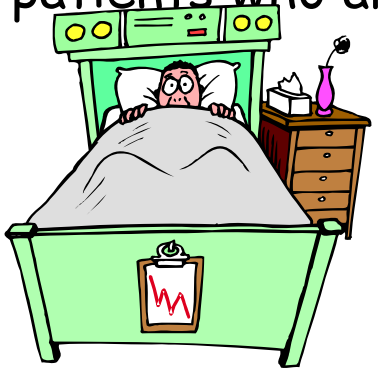
To improve the ability of clinical ward staff to recognise and respond to detectable indicators of deterioration in patients on general wards

To increase the incidence of early recognition of acutely ill patients who require intensive interventional management.

To provide a 24 hour service for acutely ill patients

To contribute towards decreasing acuity, associated morbidity and length of stay on ward patients requiring admission to ICU

To facilitate immediate skilled attention for patients who are deteriorating acutely outside ITU



Clinical role of PERT Nurses

- Member of Cardiac Arrest team
- Triage & initial management of the acutely ill ward patient
- Ensuring optimum care prior to & following ICU admission in liaison with the multidisciplinary team
- Education & support to multidisciplinary team as necessary

PERT Calling Criteria

- Respiratory Rate > 25 or < 8 breaths/min
- Oxygen Saturation < 90% on 35%+ Oxygen
- Heart Rate >125 or <50 beats/min
- Systolic blood pressure <90 or >200 mmHg
  (or sustained fall >40 mmHg from normal value)
- Sustained alteration in conscious level
- Patient looks unwell or you feel worried about their clinical condition

Nursing assessment

- Respiratory
- Cardiovascular
- Neurological
- Renal
- Endocrine

Assessment of the Sick Patient

Look

- Overall status – confused, restless, obtunded, moribund, able to answer questions
- Colour – cyanaosis (central – lips, buccal mucosa, peripheral – fingers, toes, legs,arms)
- Ankles, sacrum – swollen, oedematous
- SOB – dyspnoeic or laboured breathing

Assessment of the Sick Patient

Feel

- Skin – clammy & cool (poor perfusion) pink and warm with low BP (sepsis)
- Pulse – rate, volume, rhythm – pulsus paradoxus, alternans, collapsing

Listen

- Breath sounds – fluid overload / LVF
- Complaints of pain, tightness, nausea

Assessment of the Sick Patient

Measure

- Blood Pressure
- Urine output
- Heart Rate
- Blood results
- Oxygen Saturations
- Respiratory Rate

Aims of Nurse-led Pre-Admission

- Designing care around the patient
- Team approach with physiothreapy, nutritionist, community services, hospital staff
- Reducing DNA's and cancelled operations as unfit
- Improving patient satisfaction

Pathway to Care

- All initial assessments performed by nurse
- All tests performed by nurses
- Used for inpatients and day surgery
- 4-6 weeks in advance
- Consultant anesthetist present for all clinics, for referral for pre defined criteria

Nurse led ..

- Assessment
  - Cardiovascular (listen to heart & Lungs)
  - Past medical history
  - Airway assessment (Mallampatti)
  - Drugs

Continued

- Information and education (hand outs)
  - Surgical procedure
  - Anaesthetic
  - Post operative pain management

Tests

- ECG (all seen by anaesthetist)
- Bloods
- Urine
- MRSA
- Height/Weight

Abnormal findings-who to refer to?

- Consultant anesthetist
- For medical conditions either GP, or hospital clinician present for all clinics
- Pain team
- Surgical team
- Anesthetic department

Evaluate & Monitor

- Audit patient satisfaction
- In our DTC clinic 746 patient's responded, with 99.7% patient satisfaction
- 100% of patients felt it was useful in preparing them for surgery
- Look at other trusts for good practice models & Modernisation guidance

Guidance on Pre-operative tests

- NICE-Clinical Guideline 3, www.nice.org.uk,
- Sets out recommendations for chest Xrays, ECG, Blood tests, Lung function tests,
- NHS Modernisation Pre-operative assessment guidance on Day Surgery & In-patients:
- www.modern.nhs.uk/theatreprogramme/preop

Post Anaesthetic Recovery

- Established area of nursing practice in UK
- Facilitates optimisation of theatre time (allows lists to run faster)
- Facilitates safe transition from theatre to fit to return to ward
- Monitor the patients more closely than on wards
- Situated in the operating theatres

Post Anaesthetic Recovery Nurse

- Specialists in airway management
- Prioritising care whilst patient is emerging from anaesthesia
- Specialist knowledge of anaesthesia and surgical techniques
- 1:1 nursing
- Optimise pts analgesia detect and treat early possible complications (recognise the abnormal)

Recovery nurse skills

- Airway/respiratory
  - Safe maintenance of all types of airways - Larangeal mask airways/Endotracheal tubes/ Guedal airway, oxygen therapy
  - Ventilated patient
  - Extubation

Cardiovascular

- Heart rate
- ECG
- Blood pressure (invasive & non invasive)

Continued

Fluid management

- Blood loss
- Intravenous

CNS

- Assessment of level of conscious
- Sedation
- Pain score

Operation specific monitoring

- Pedal pulses for vascular/orthopedic surgery

Continued

- Thermoregulation
  - Warm patient/fluids
- Documentation
  - Correct prescription
  - Postoperative instructions

- And of course nurse anaesthetists