

## **Paediatric and Neonatal Service and Clinical Quality Indicators**

### **A Position Statement by the Paediatric Nursing Associations of Europe (PNAE)**

#### ***Introduction***

The Paediatric Nursing Associations of Europe Network (PNAE) conducted a survey throughout 2008 to identify Service and Clinical Quality indicators for paediatric and neonatal services across Europe. The aim was to agree a statement about service and clinical quality indicators and to facilitate sharing of best practice and examples of audit and patient satisfaction tools currently used across Europe.

This document represents a consensus position of the organisations representing paediatric nurses across many European countries with regard to service and clinical quality indicators reflecting the EC Health Indicators which demonstrate factors related to health behaviour and health systems across Europe (see Appendix 1). The process taken to identify the indicators in existence is outlined in Appendix 2.

During the work to identify service and clinical quality indicators in use across the EU members of the PNAE network highlighted many of the health behaviour and health system indicators encompassed within the EC Health Indicators listed but expressed particular concern around the increasing incidence of obesity, alcohol consumption and substance misuse amongst children and young people across Europe.

#### **Clinical Quality Indicators**

Key measures which can be used to determine the quality of clinical care were considered in relation to neonates, children and young people. Most of the indicators cross all age groups but some are specific to neonates, children or young people:

##### *For all ages*

- Pain assessment undertaken using an appropriate tool
- Analgesic drugs administered appropriately
- Use of non-drug methods of pain relief
- Post-operative pain and pain management
- Mechanisms in place to record and report untoward incidents, including medication errors
- The rate of hospital acquired infections
- Return to Intensive care/re admission rates
- Use of and evaluation of evidence based guidelines

##### *Neonates*

- Skin to skin time
- Developmental care
- Post-partum breast feeding rates

##### *Children*

- Involved as appropriate in decision-making about care
- Effective communication between child and health care professionals
- Mental health support for children with a chronic illness

### *Young People*

- Involved in decision-making about care
- Effective communication between child and health care professionals
- Compliance to treatment
- Mental health support for young people with a chronic illness

### **Service Quality Indicators**

Key measures which can be used to determine the quality of services were considered in relation to neonates, children and young people. Most of the indicators cross all age groups but some are specific to neonates, children or young people:

#### *For all services*

- Parental satisfaction
- Complaints
- Parents/carers able to stay with children if able/want to
- Number of isolation rooms and ability to isolate appropriately where required
- Waiting times
- Availability of paediatric and neonatal trained nurses and provision for training and updating of nurses
- Staffing ratio – i.e. enough nurses around to care for their child and the ratio of registered nurses to nurse assistants/auxiliary personnel
- Workforce factors such as staff absence, recruitment and retention

#### *Neonates*

- UNICEF Baby Friendly standards
- EACH Charter

#### *Children*

- Provision for age and developmental needs – e.g. play room, school room
- UNICEF Child Friendly standards
- EACH Charter

#### *Young People*

- Provision for age and developmental needs e.g. teenage room, school room
- EACH Charter

### **Assessing Clinical and Service Quality**

Mechanisms used to assess clinical and service quality can include:

- Observation studies and external audits
- Satisfaction surveys
- Senior nurse ward rounds
- Nursing Minimum Data Set II measurement tool

**Useful websites for further information include:**

**Clinical Quality Indicators** - <http://www.ic.nhs.uk/cqi>

**Agency for Healthcare Research and Quality** - <http://www.qualityindicators.ahrq.gov/>

**Care Quality Commission** - <http://www.cqc.org.uk/>

**Health Care Commission** – <http://www.healthcarecommission.org.uk/>

**International Council of Nurses** - <http://www.icn.ch/>

### **Key stakeholders**

Professional nursing association/organisation in each member state

EU and individual governments of member states

EFN

FePI

HOPE

## Appendix 1: EC Health Indicators

This appendix encompasses an extract of the relevant European Community Health Indicators (ECHI) listed in the Public Health Programme (2003-2008). The information covers health related behaviour of the population (e.g. data on lifestyles and other health determinants); diseases (e.g. incidence and ways to monitor chronic, major and rare diseases) and health systems (e.g. data on access to care, on the quality of care provided, on human resources, and on the financial viability of healthcare systems).

### Public Health

**Developing health indicators and data collection** - Work done at EU level to develop comparable indicators on health and health-related behaviour of the population (for the future health monitoring system)

**Dissemination of health information and data** - Information on the EU aim to develop the European Union Health Information System

### Data on Population

**Population by gender/age** - Information and data on the EU population by gender and age

**Age dependency ratio** - Information and data on the population by age dependency ratio

**Crude birth rate** - Data on the number of events (births or deaths) to the mean of the population in a given year

**Population projections** - Data on the populations projections based on assumptions on total fertility rate, life expectancy and migration

**Life expectancy** - Data on life expectancy of the population if subjected throughout his life to the current mortality conditions

**Standardized death rates Eurostat 65 causes** - Information on death rates of a population of a standard age distribution

### Health Status

**Perceived general health, prevalence** - Data on self perceived health and disability status

**Health expectancy, based on limitation of usual activities** - Data on health expectancy, based on limitation of usual activities

**Prevalence of any chronic illness** - Self-perceived indicators to perform daily activities because of chronic conditions

### Babies and Children

**Infant mortality** - Data on infant mortality

**Perinatal mortality** - Data on perinatal mortality (foetal deaths and early neonatal mortality)

**(Low) birth weight** - Data on low birth weight distributions

**Vaccination coverage in children** - Data on the percentage of infants reaching their first birthday who have been fully vaccinated

### Tobacco

**Regular smokers** - Data on the percentage of smokers by age (15-24 by) and gender

### Drugs

**Drug-related deaths** - Information and data on deaths that are caused directly by the consumption of drugs of abuse

### Alcohol

**Total alcohol consumption** - Data on litres per capita of pure alcohol consumed among the population aged 15 and over

### Nutrition

**Consumption/availability of fruit** - Data on the consumption of fruit per country

**Consumption/availability of vegetables** - Data on the consumption of vegetables per country

### Road Safety

**Injuries: road traffic** - Data on the number of fatalities caused by road accidents

### **Social environment**

**Population below poverty line** - Unemployment rates representing unemployed persons as a percentage of the labour force

### **Environmental health**

**PM10 exposure** - Data on the percentage of urban population exposed to air pollution concentration levels exceeding limit values

### **At Work**

**Injuries: workplace** - Incidence rates of accidents occurring in the course of work that lead to physical or mental harm

**Total unemployment** - Data on the total rate of unemployed persons as a percentage of the labour force

### **HIV-AIDS**

**HIV-AIDS** - Data on the AIDS incidence rate

### **Hospital Activity**

**Hospital beds** - Data on the beds accommodating patients who are hospitalised for treatment and/or care

**Hospital in-patient discharges** - Data on discharge of patients from hospitals

**Average length of stay (ALOS)** - Data on the average length of stay

**Surgeries: PTCA, hip, cataract, etc.** - Data on main surgical operations and procedures performed in hospitals

**MRI units, CT scans** - Number of MRI units and CT scanners per million of population

### **Health Staff**

**Nurses employed** - Data on the total number of qualified nurses and midwives per 100 000 inhabitants

**Physicians employed** - Data on practising physicians/doctors and licensed physicians/doctors per 100 000 inhabitants

**General practitioners utilisation** - Data on the number of patient contacts to General Practitioners (GP) within a calendar year

### **Expenditures on Health**

**Expenditures on health** - Data on total expenditure on health

### **Rare diseases**

**Estimated prevalence for some rare diseases** - This study aims to evaluate the prevalence of a number of rare diseases in Europe and to document, for each disease, the age of onset, life expectancy and mode of inheritance

## **Appendix 2:**

PNAE members and their professional association identified a list of service and clinical quality indicators. The full list can be found below. The list can be seen to contain health indicators also contained within EC health indicators, these were subsequently excluded and using a Delphi approach service and clinical quality indicators were subsequently identified for neonates, children and young people.

### **Factors measured to indicate a good quality service from a neonates perspective?**

- Statistics of neonates/register of neonates
- Neonatal health care provider reports to Ministry of Health
- Neonatal Death Rates
- Peri-natal death rates
- Post-partum breast feeding rates
- Skin to skin time
- Developmental care
- Paediatric Quality Commission/Ombudsman
- Ethics and pain management
- Baby Friendly
- Parental satisfaction
- Training of nurses
- Hospital acquired infections
- Complaints
- Incidents, medication errors
- Observation studies and external audits
- Return to Intensive care
- Pain assessment tool used
- Analgesic drugs administered appropriately
- Non-drug methods of pain relief
- Respect of individuals rights

### **Factors measured to indicate a good quality service from a child's perspective?**

- Economic development
- Demographics
- Quality of life and poverty
- Health status
- Education attainment
- Social service provision
- Provision for children with special needs
- Rates of neglect, abuse and violence
- Drug dependence
- Child death rate/ death rate under 5
- Vaccination rates
- Respiratory Tract infection rates
- Quality of care from child's perspective
- Paediatric Quality Commission/Ombudsman
- Nursing minimal data set NMDS II
- Training and updating of nurses
- Parental satisfaction
- Care programme for children (by law)
- Hospital acquired infections
- Complaints
- Incidents, medication errors
- Observation studies and external audits
- Return to Intensive care/re admission rates

- Pain assessment tool used
- Post-operative pain and Pain management
- Analgesic drugs administered appropriately
- Non-drug methods of pain relief used
- Provision of play specialists
- Provision of age and developmental needs – e.g. play room
- Involved in decision-making about care
- Effective communication between child and health care professionals
- Obesity
- Respect of individuals rights
- Mental health support for children with chronic illnesses
- Quality of care from a child's perspective

**Factors measured to indicate a good quality service from a young person's perspective?**

- Health life style
- Economic development
- Demographics
- Quality of life and poverty
- Health status
- Education attainment
- Social service provision
- Teenage pregnancies
- Drug dependence
- Smoking rates
- Nutrition
- Quality of care from young person's perspective
- Paediatric Quality Commission/Ombudsman
- Nursing minimal data set NMDS II
- Training and updating of nurses
- Parental satisfaction
- Care programme for children (by law)
- Hospital acquired infections
- Complaints
- Incidents, medication errors
- Observation studies and external audits
- Provisions for age and developmental needs e.g. teenage room
- Educational provision and careers advice for young people with chronic illnesses
- Pain assessment tool
- Post-operative pain and Pain management
- Analgesic drugs administered appropriately
- Non-drug methods of pain relief used
- Involved in decision-making about care
- Effective communication between young people and health care professionals
- Alcohol abuse
- Compliance to treatment
- Mental health support for young people with chronic illnesses
- Quality of care from a young persons perspective

**Factors measured to indicate a good quality service from a parents' perspective?**

- Health life style
- Economic development
- Demographics
- Quality of life and poverty

- Social service provision
- Percentage of pregnant women smoking
- Nutrition
- Percentage of pregnant women with HIV
- Care ratios during pregnancy
- Family planning ratios
- Patient services office (ombudsman)
- Survey's/questionnaires about quality of care and services
- Care program for children (by law) (it respects a lot off items from the 10 rights off children)
- Matron's ward rounds
- Rates of infection, readmission to hospital and ICU
- Complaints
- Appropriately trained nurses
- Pain assessment tool used
- Analgesic drugs administered appropriately
- Non-drug methods of pain-relief used
- Effective communication between parents and healthcare professionals
- Able to stay with children if able/want to
- Staffing ratio – i.e. enough nurses around to care for their child

**Factors measured to indicate a good quality service from a senior nurses' perspective?**

- Economic development
- Nurses health care education in school
- Demographics
- Quality of life and poverty
- Health status
- Education attainment
- Social service provision
- Rates of neglect, abuse and violence
- Drug dependence
- Nurses knowledge of paediatrics/paediatric nurse training
- In-service education ratio's
- Nurse to patient ratio
- Nurses / assistant nurses ratio
- Nurses / auxiliary personnel ratio
- Isolation rooms / total of rooms
- Nursing Shifts / week for any ward - (morning shifts / week, afternoon shifts / week, night shifts / week)
- Paediatric inpatients for social reasons / ward
- Medication errors/adverse events
- Hospital acquired infection rates
- Observation studies and external audits
- Complaints
- Recruitment and retention (turnover rates)
- Bank and agency use
- Staff absence rates
- Satisfaction surveys

**Factors measured to indicate a good quality service from a managers' perspective?**

- Economic development
- Demographics
- Quality of life and poverty
- Health status
- Education attainment

- Social service provision
- Workforce planning
- Nurse to patient ratio
- Nurses / assistant nurses ratio
- Nurses / auxiliary personnel ratio
- Isolation rooms / total of rooms
- Nursing shifts / week for any ward - (morning shifts / week, afternoon shifts / week, night shifts / week)
- Paediatric inpatients for social reasons / ward
- Use of and evaluation of evidence based guidelines
- Waiting times
- Complaints
- Masters degree in nursing
- Medication errors/adverse events
- Hospital acquired infection rates
- Observation studies and external audits
- Meeting targets i.e. 4 hour wait in Emergency Department, 18 week wait for operations

**Factors measured to indicate a good quality service from a health ministers' perspective?**

- Demographics
- Quality of life and poverty
- Health status
- Education attainment
- Social service provision
- Rates of neglect, abuse and violence
- Drug dependence
- New health programmes
- Nurses / patient ratio
- Nurses / assistant nurses ratio
- Nurses / auxiliary personnel ratio
- Completeness (patient / bed ratio)
- Systematically surveillance of cleanliness
- Systematically (at every shift) surveillance of completeness (patient / bed ratio) in all intensive care settings national wide
- Systematically (everyday) surveillance of nosocomial infections in national level
- Certification of qualifications for all nurses
- Number of outpatients / day
- Use of and evaluation of evidence based guidelines
- Waiting times
- Complaints
- Hospital acquired infection rates
- Observation studies and external audits
- Financial balance