

fundamental nursing skills

Edited by **Penelope Ann Hilton** SEN, SRN, RMN,
DIPN (LOND), FETC, BSc (HONS), MMEDSci, RNT
Lecturer in Nursing, University of Sheffield



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This book is dedicated to my late mother Noreen,
my inspiration, motivation, confidante and best friend.
A very brave and compassionate lady to the end.

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Preface

This book has arisen primarily in response to the increasing concern expressed about the perceived lack of ability in both students and newly qualified staff nurses to perform clinical skills. This deficit has been largely attributed to the advent of Project 2000 and the subsequent move of nurse education into Higher Education. Innovations in nursing such as the Nursing Process, Nursing Models and new methods of organizing care delivery, each with their emphasis on providing individualized nursing care, may also have exacerbated this problem. These initiatives have largely resulted in the demise of procedure manuals as a source of reference in many clinical areas. Consequently nurses and the increasing number of health care workers in new roles such as cadet nurses, health care assistants and generic ward practitioners no longer have an easily accessible source of reference in the clinical arena. This is particularly problematic when they are faced with undertaking a procedure for the first time.

The intention of this book is to redress this deficit by:

- 1 outlining the elements of essential nursing procedures in a readily accessible format
- 2 providing the rationale for the recommended actions
- 3 promoting evidence-based practice.

This book is unique in that it encourages the reader to keep a record of achievement in relation to clinical skill competence. It also differs from existing publications in that it is presented in a more readily accessible and user-friendly format for the busy clinician. Further, this text may be of benefit to lay persons undertaking the main carer role in the home setting.

The selection of skills for inclusion is based on extensive consultation with experienced clinicians, students, clients and their significant others as well as teachers of nursing. Each procedure has been carefully researched to provide a contemporary foundation for practice. The book is the first of a series which aims to promote professional and personal

development from novice through to expert in sequential stages. References and further reading are offered at the conclusion of each chapter.

The inherent danger in producing books of this nature is that they may be perceived to be encouraging a task-orientated approach to patient care. In acknowledging this potential the chapters have been structured around the Activities of Living (Roper et al 2000) to encourage the reader to view each of the skills as an intricate part of holistic individualized care. The book also contains a rapid reference section of common terminology, conversion tables, laboratory results and other, equally useful, information.

Whilst every attempt has been made throughout the text to reflect contemporary practices, the reader is reminded that practice will continue to develop in the light of new evidence and changing policy. A commitment to lifelong learning is therefore essential.

Penelope Ann Hilton
December 2003

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Introduction

In 1859 Florence Nightingale suggested that ‘The elements of nursing are all but unknown’. It could be argued that this statement remains true today: some groups maintain that nursing is about keeping clients clean and well nourished; others that it is about making clients feel safe; others focus purely on the psychological needs of clients; and yet others think that it is about carrying out physical tasks delegated by, but remaining under the auspices of, doctors (Hilton 1997).

In looking back down the well-trodden path it can be seen that over the past 150 years or so nursing has slowly evolved from something that was considered essentially women’s work, which could be undertaken by any ‘good woman’, was largely concerned with caring for the sick, and with providing the best environment for nature to take its course, to being something that is very complex, skilled and sometimes highly technical, involving health education and promotion as well as meeting a wide variety of illness-related needs of clients. It is now an occupation that attracts both men and women whose pay constitutes more than a bottle of gin (Hilton 1997).

Indeed, many now contend that nursing has reached the epitome, that long-strived-for goal of professional recognition (Clay 1987), as it now has an academic, secular training programme, a Code of Professional Conduct (see Appendix I) and its own regulating body, the Nurses and Midwives Council. It is a profession that is clearly distinct from medicine, where registered nurses are considered autonomous, accountable practitioners who work from a soundly researched knowledge base and whose practice is for the benefit of others.

The majority of changes that have occurred in nursing and other emergent professions allied to medicine, such as physiotherapy and occupational therapy, have occurred as a result of changing health care needs, technological advances and a plethora of new knowledge as well as changes in societal attitudes, values and beliefs and an increasing cultural milieu. We now live in times of continuing change and advancement.

Consequently health care, and therefore nursing, cannot remain a static entity. It must move, develop and evolve in the light of societal changes along with its other related disciplines.

In order to enable effective response, to provide direction to influence health care policy and legislation, to assist in determining further workforce needs, and to inform resource management the Royal College of Nursing (RCN) has recently undertaken a scoping exercise. It defined nursing as ‘the use of clinical judgement and the provision of care to enable people to promote, improve, maintain or recover health or, when death is inevitable, to die peacefully’ (RCN 2003:1). This has come at a time when the current government is seeking to contain costs, destabilize the professions and merge professional boundaries with the ultimate aim of promoting better interprofessional working and, thus, higher standards and more cost-effective but better-quality health care.

As such, a much greater emphasis is being placed on the promotion and maintenance of health and well-being. However, a word of caution: this definition advanced by the RCN, and the assumptions on which it is based, should not be viewed in isolation. As with many of the previous definitions of nursing offered and indeed the sometimes radical changes in nursing and health care that have taken place in recent years, to date there has been no client involvement in its conception or development.

However, despite presenting a little background to nursing and health care today, it is not the purpose of this text to dwell on definitions of health and illness or to debate the politics of health care, but to provide practical direction in day-to-day clinical experiences. It would therefore seem prudent to reflect on current practice, part of which is about assessing client care needs.

Assessment and the nursing process

In order to determine a client’s care needs, assessment is a crucial first step. If a client’s normal routines, patterns and behaviours are not explored and compared with their current health care status and abilities, significant aspects of care need may be omitted or care may be provided that the client does not require. In doing so, there is a risk of jeopardizing their independence and losing their trust and confidence. Assessment is the first stage of a four-stage cyclical process generally referred to as the ‘Nursing Process’ (Yura and Walsh 1967), a concept developed in the USA during the early 1980s. The other three stages are planning, implementing, and evaluation, though other writers include data collection and diagnosis as separate stages.

Whilst the emphasis appears to be on nursing, it can be argued that it is equally applicable to any profession claiming to provide a service and encountering a client for the first time. For those interested in exploring the historical development of this concept further, some key texts can be found at the end of this section.

Assessment includes collecting all relevant information and then determining the client's actual or potential problems. From this information care can then be planned in full consultation with the client, their significant others and other members of the multidisciplinary team as appropriate. Care planning should be clearly documented and include the goals of care – that is, what it is we are striving to achieve – making sure, of course, that these are both realistic and achievable, along with precise details of how they are going to be achieved.

For example, Fred has been admitted to an acute medical setting with a very bad chest infection. On assessing his ability to breathe it is evident that he is experiencing difficulty expectorating his sputum; that is, he is unable to cough up the secretions from his lungs that are resulting from his infection. The goal of care may be that Fred will expectorate freely prior to discharge. The care then might include:

- ensuring that Fred drinks a minimum of two litres of fluid per day
- ensuring that he has a ready supply of sputum pots and tissues
- referring him to the physiotherapist
- providing chest percussion a least three times a day
- instructing him in how to undertake deep breathing exercises to promote expectoration
- ensuring that he undertakes these a minimum of three times a day prior to meals
- providing mouthwashes every four hours and on request.

Everyone involved in Fred's care is therefore very clear about his care needs and can then go on to implement these without constantly having to check with Fred, the physiotherapist or other colleagues – provided of course that the instructions are clear and comprehensible (see the section on 'Record keeping' in Chapter 6).

It is also useful to include measurements wherever possible as this can help us to evaluate whether or not Fred has achieved the desired goals of care later.

The nursing process and nursing models

Whilst the nursing process offers a systematic way of looking at care delivery, on its own it is not particularly useful as it does not give any indication as to what to assess. It indicates that care should be planned, implemented and evaluated but again offers little direction as to how to do this. Consequently a number of practitioners and nurse theorists have offered theoretical frameworks or models. One such model is the 'Activities of Living Model', proposed by Nancy Roper, Winifred Logan and Alison Tierney (1996). Basing their ideas on previous work by Maslow (1958) and Virginia Henderson (1960), and Nancy Roper herself, Roper, Logan and Tierney set out to describe what they believed everyday living involves for individuals, and from this identify the necessary components of nursing.

In very simple terms their model can be summarized as consisting of four components, which all contribute to individuality in living, namely (1) the lifespan continuum from conception to death; (2) 12 activities of living (listed below); (3) five factors that influence each of these activities, that is physical, psychological, sociocultural, environmental and politico-economic; and (4) a dependence/independence continuum.

The 12 activities of living are:

- 1 breathing
- 2 mobilizing
- 3 personal cleansing and dressing
- 4 maintaining a safe environment
- 5 eating and drinking
- 6 communicating
- 7 dying
- 8 eliminating
- 9 maintaining body temperature
- 10 expressing sexuality
- 11 working and playing
- 12 sleeping.

According to Roper and her co-workers (2000), by assessing each of these aspects it is possible to determine a person's individual nursing and health care needs and in doing so determine priorities of care. For example, when assessing an adult with an enduring mental health problem such as chronic depression, eating and drinking may be the priority of care, whereas if caring for a very young child, maintaining a safe environment might be the most urgent concern.

To return for a moment to Fred, clearly the illustration presented is of just one aspect of his care needs related to the physical side of the ‘activity of breathing’. In order to deliver holistic care (i.e. making sure that all his care needs are met), each factor of each activity must be assessed and his level of independence or dependence determined. So, for example, Fred may also be very anxious about not being able to expectorate his sputum and may think that if he cannot cough it out he will die. This illustrates how the activities, in reality, often overlap. By providing this simple framework, however, Roper, Logan and Tierney help to direct our thinking in a more logical, sequential way and if every aspect of each activity is covered when clients are assessed a clear picture of their individual needs should emerge without the omission of any important points.

Whilst some might argue that Roper, Logan and Tierney’s model is not appropriate in caring for clients with learning difficulties or mental health problems, it is in fact the most widely used framework in Europe regardless of setting. If utilized to its fullest extent, it can usefully direct learners in any field of health care. Therefore, the remainder of this text is structured around their 12 activities of living to help readers to relate the theory to everyday practice.

Each of the following 12 chapters offers: an introduction to the activity; common terminology related to that activity; points to consider when assessing the activity; followed by fundamental care skills related to that activity. Appendix I is a rapid reference section, which gives a detailed glossary to support the main text, normal values and other such useful information. Appendix II provides an opportunity for readers to record their achievements.

Finally, as a point of note, whilst acknowledging the variety of terms in use, as well as possible gender issues, for ease and continuity the term ‘client’ has been used throughout this text.

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Chapter 1

Breathing

Penelope Ann Hilton

Introduction

The process of external respiration (breathing) consists of two stages, namely *inspiration*, inhaling (breathing in) air in order to extract the oxygen from the air, and *expiration*, exhaling (breathing out) in order to expel carbon dioxide. Oxygen is required by the body to release energy at cell level so that the individual can participate in activities. The release of such energy through metabolism produces carbon dioxide as a waste product that must be expelled from the body. The presence of carbon dioxide in the blood plays a key role in maintaining respiratory function and in maintaining homeostasis by regulating the pH of the blood (acid–base balance). A pH value between 7.35 and 7.45 is essential for normal body functioning.

Breathing is essential to life. The ability to undertake a swift assessment of the client's ability to breathe and instigate removal of an obstruction and/or rescue breathing if needed is therefore crucial (see 'Maintenance of an airway' and 'Artificial respiration'). A full assessment of the person's ability to breathe should be undertaken once adequate respiratory function has been restored.

There are several important structural differences between adults and children that influence respiration, including the shape of the chest at birth, shape and angle of the ribs and elastic properties of the lung tissue. The nasal passages and trachea of infants and young children are narrower and can therefore be more easily obstructed. They also have less alveolar surface area for gaseous exchange. These latter points are extremely important when attempting to remove an obstruction or provide effective rescue breathing. It is, therefore, crucial to be familiar with the different techniques for these client groups.

Factors that may affect breathing may be:

- *physical*, arising from alteration in the structure, function or processes of the respiratory and associated systems
- *psychological*, such as anxiety and stress
- *sociocultural*, for example smoking

- *environmental*, including pollution and allergies
- *politico-economic*, for example lack of finances for heating.

The remainder of this chapter gives the common terminology associated with the activity of breathing, points to consider when assessing an individual's breathing, how to monitor respiratory rate and peak flow, airway maintenance, monitoring of expectorant, obtaining specimens and disposing of sputum, administration of oxygen, and rescue breathing. The chapter concludes with references and further reading.

Common terminology

Aerobic	With oxygen
Anaerobic	Without oxygen
Anoxia	No oxygen reaching the brain
Apnoea	Absence of breathing
Apnoeustic breathing	Prolonged gasping inspiration and short inefficient expiration
Asthmatic breathing	Difficulty on expiration with an audible expiratory wheeze. Caused by spasm of the respiratory passages and partial blockage by increased mucus secretion
Biot's respirations	Periods of hyperpnoea occurring in normal respiration. Sometimes seen in clients with meningitis
Bradypnoea	Slow but regular breathing. Normal in sleep but may be a sign of opiate use, alcohol indulgence or brain tumour
Cheyne-Stokes respirations	Gradual cycle of increased rate and depth followed by gradual decrease with the pattern repeating every 45 seconds to three minutes. Also associated with periods of apnoea, particularly in the dying
Cyanosis	A bluish appearance of the skin and mucous membranes caused by inadequate oxygenation
Dyspnoea	Difficulty breathing
Expiration	The act of breathing out
Haemoptysis	Blood in the sputum
Homeostasis	The automatic self-regulation of man to maintain the normal state of the body under a variety of environmental conditions
Hypercapnia	High partial pressure of carbon dioxide
Hyperpnoea	Deep breathing with marked use of abdominal muscles
Hyperventilation	Increased rate and depth of breathing
Hypoventilation	Irregular, slow, shallow breathing

Hypoxia	A lack of oxygen concentration
Hypoxaemia	A lack of oxygen in the blood
Inspiration	The act of breathing in
Kussmaul's respirations	Increased respiratory rate (above 20 rpm), increased depth, panting laboured breathing. Causes include diabetic ketoacidosis and renal failure
Orthopnoea	The ability to breath easily only when in an upright position
Perfusion	The flow of oxygenated blood to the tissues
Stridor	A harsh, vibrating, shrill sound produced during respiration. Usually indicates an obstruction
Tachypnoea	Increased rate of breathing
Tracheostomy	Making of an opening into the trachea or windpipe
Ventilation	The movement of air in and out of the lungs

Assessing an individual's ability to breathe

Remember that assessment of breathing is only part of a holistic nursing assessment and should not be undertaken in isolation without reference to or consideration of the client's other activities of living.

The specific points to be considered when assessing an individual's breathing include:

- *Physical*

Respiratory rate

depth

sounds

pattern/rhythm

Presence of cough

productive

unproductive

Sputum

colour

consistency

amount

smell

Degree of effort, use of accessory muscles (e.g. shoulders/neck)

Nasal flaring, which is usually a sign of increased effort, particularly in infants

Sternal recession, the sinking in of sternum during inspiration, particularly in infants

Tracheal tug, the sinking in of the soft tissues above the sternum and between the clavicles during inspiration, particularly in infants

Intercostal recession, the sinking in of the soft tissues between the ribs during inspiration

Facial expressions
Colour of skin/mucous membranes - mottling, pallor, cyanosis
Presence of scars
Shape of thorax, symmetry of movement
Evidence of external/internal injury
Position adopted by client and influence of body position on breathing
Pain related to inspiration/expiration/movement
Breathes through mouth and/or nose
Clubbing of finger ends
Head bobbing, that is, forward movement of head on inspiration in a sleeping or exhausted infant is a sign of breathing difficulty
Status of hypoxic drive, that is, is the client retaining carbon dioxide?

- *Psychological*
 - Stress
 - Anxiety
 - Depression
 - Hysteria
 - Irritability
 - Confusion
- *Sociocultural*
 - Level of support from family/external agencies
 - Smoking
 - Health beliefs/values
 - Hobbies/pastimes
 - Level of family support
- *Environmental*
 - Pollution, such as dust mites and pollen
 - Cold, damp or foggy weather
 - Type of accommodation
 - Stairs to climb
 - Work related
- *Politico-economic*
 - Limited finances
 - Employed/unemployed
 - Poor heating
 - Poor diet
- *Past history*
 - Past illnesses related/unrelated
 - Recent holiday abroad
 - Family difficulties
 - Powers of recovery
 - Knowledge of condition

Monitoring respiratory rate

Monitoring a client's respiration rate is essential to facilitate the evaluation of medical treatment and nursing interventions.

Equipment

A digital watch or watch with a second hand, together with an appropriate chart for recording, is required. The procedures and rationales are given below.

Procedure	Rationale
Explain procedure and ensure adequate understanding	Promote client co-operation and obtain informed consent, though this step is often omitted where there is a danger that the person may voluntarily control their breathing and thus alter the rate
Count respirations as chest rises and falls for a period of one minute	To monitor rate and compare to norm values New-born: 30-80 rpm Early childhood: 20-40 rpm Late childhood: 15-25 rpm Adult male: 14-18 rpm Adult female: 16-20 rpm Pulse-to-respiration ratio = 5:1
Observe depth of respirations	To monitor depth and compare to norm - usually shallow and effortless
Listen for breath sounds, e.g. stridor, wheeze, rub, rattle	To monitor sounds and compare to norm - usually almost inaudible
Observe pattern of breathing and use of accessory muscles	To monitor pattern and compare to norm - usually effortless
Observe colour of skin/mucous membranes, e.g. pallor, cyanosis	To ensure that adequate oxygen is getting to the tissues (i.e. tissue perfusion)
Record rate on appropriate chart and report any abnormalities	Legal requirement to maintain documentation and safeguard client through good communications

Monitoring peak flow

Monitoring a client's peak flow levels gives an indication of respiratory function and facilitates objective evaluation of treatment, for example nebulizer therapy. A peak flow recording is defined as a measurement of the amount of air that can be forcibly exhaled and is used to monitor respiratory function. Bear in mind that peak flow measurement should *not* be attempted on patients in severe respiratory distress.

Equipment

The equipment needed to monitor peak flow consists of a peak flow meter and mouthpiece and an appropriate chart for recording the results. The procedures and rationales are given below.

Procedure	Rationale
Explain procedure and ensure adequate understanding	To promote client co-operation and obtain informed consent
Assist client into an upright position	To promote lung expansion
Fix mouthpiece to peak flow meter	To ensure correct assembly of equipment
Ensure the pointer is at zero	To ensure accurate reading is obtained
Hold meter, ensuring that fingers are clear of the scale and the holes in the base of the meter	To ensure accurate reading is obtained
Instruct client to take a deep breath	To fill lung fields to capacity with air to be exhaled
Instruct the client to hold the meter horizontally	To obtain accurate reading
Instruct client to place the mouthpiece in their mouth and close lips securely around it	To create a seal around the mouthpiece and thus prevent air leakage
Instruct client to exhale as hard as possible into the meter and sustain this for as long as possible	To expel as much air as possible
Note the number on the scale	To monitor peak flow and compare to the norm. Norm values depend on age, height and gender, e.g. Boy aged 9, 1.47 m = 350 litres/min Woman aged 30, 1.60 m = 475 litres/min Man aged 50, 1.75 m = 600 litres/min
Return pointer to zero	To prepare for second attempt
Repeat procedure twice more	To obtain highest score from three attempts
Reposition the client	To promote client comfort
Record scores on appropriate chart and report any deviation from the norm	Legal requirement to maintain documentation and safeguard the client through good communications
Wash mouthpiece in warm water with a mild detergent and dry thoroughly unless disposable	To prevent cross-infection

Maintenance of an airway

Airways must remain free from obstruction to enable effective respiratory function and thus sustain life. Remember, if the client has stopped breathing instigate artificial respirations immediately (see the section on ‘Artificial respiration’). The procedures and rationales are given below.

Procedure	Rationale
Listen for breath sounds	Noisy laboured breathing or a stridor would indicate an obstruction
Observe chest and abdominal movement	Reverse movement of these, i.e. chest sucked in and abdomen protruding indicates an obstruction
Observe colour of skin/mucous membranes	Evidence of a blue tinge (cyanosis) is suggestive of an obstruction
<p>ADULT (over 16 years) If you suspect an obstruction check in the client’s mouth for any obvious obstruction, e.g. vomit, foreign body, etc. and remove same by sweeping the mouth with a finger. Great care should be taken not to push any foreign body further into the air passage. See also Chapter 5</p>	Removal of an obvious obstruction will open the airways
<p>CHILD (1-16 years)/INFANT (0-12 months) If the client is a child or infant only remove the obstruction if it is possible to do so <i>without</i> sweeping the mouth with a finger</p>	Sweeping the mouth with a finger may cause serious trauma and/or further obstruct the airway
<p>ADULT If unconscious tilt the head well back and lift the chin (see Figure 1.2a)</p>	When unconscious the tongue may sag in the throat and block the airway. By tilting the head and lifting the chin the tongue will be lifted clear of the back of the throat. If airway clearance is not obtained try a jaw thrust (see Figure 1.2a)
<p>CHILD If the child is unconscious gently lift the chin and tilt the head only slightly (i.e. sniffing position, see Figure 1.2b)</p>	If the head of a child or infant is tilted too far back it will act to decrease the area of functional airway rather than maximize it. If airway clearance is not obtained try a jaw thrust (see Figure 1.2b)
<p>INFANT The desirable degree of tilt in the infant is neutral (i.e. not tilted back, Figure 1.3)</p>	

Procedure	Rationale
<p>ADULT Place client in recovery position (see the section 'Moving and positioning clients' in Chapter 2) once normal respiratory function is restored</p>	<p>To maintain patient safety</p>
<p>CHILD/INFANT Assist the child to find a comfortable position once normal respiratory function is restored</p>	<p>A child/infant will often find the best position to maintain their airway and should not be forced into a position which is uncomfortable</p>

Figure 1.1 (a) Head tilt and chin lift (adult); (b) Head tilt and chin lift (child)

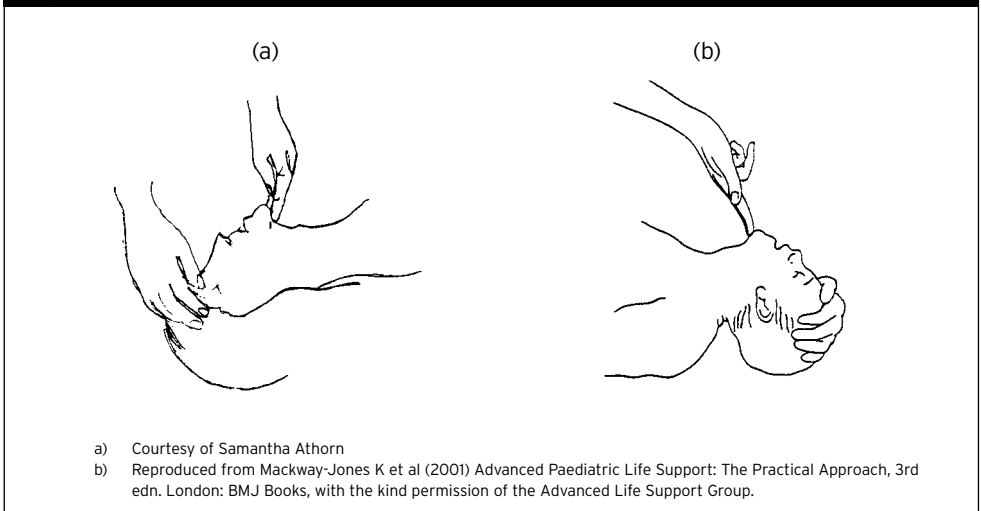


Figure 1.2 (a) Jaw thrust (adult); (b) Jaw thrust (child)

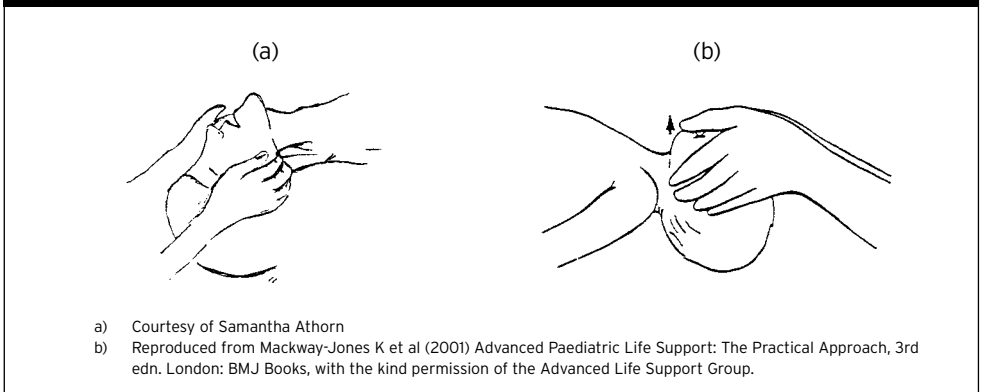
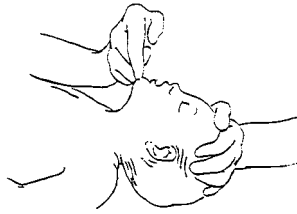


Figure 1.3 Neutral (infant)

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Monitoring expectorant

Monitoring expectorations facilitates thorough assessment and evaluation of the client's condition and response to treatment. Expectorant refers to any secretions coughed out of the lungs and should not be confused with saliva (secretions from the mouth).

Equipment

The equipment required for monitoring consists of sputum pot, weighing scales (if available), appropriate chart for documenting results, and gloves. The procedures and rationales are given below.

Procedure	Rationale
Glove hands	To protect against infection
Observe colour	To monitor colour and compare to the norm. Yellow to green sputum indicates degree of infection. Putty or grey colour may indicate TB. Blood-streaked sputum may be caused by trauma or lung disease. Haemoptysis (blood in the sputum) is indicative of lung disease. Pink frothy sputum is indicative of heart disease/pulmonary oedema.
Observe consistency	To monitor consistency and compare to the norm

Procedure	Rationale
Observe amount by weighing the sputum pot with the expectorant and subtracting the weight of an empty pot. If scales not available record amount as full pot, half pot, etc.	To measure the amount and compare to the norm. Weighing the expectorant gives an objective measure of the amount and is therefore more accurate and facilitates evaluation
Note any odour from the expectorant without directly inhaling over the pot	Directly inhaling over the pot may lead to inhalation of airborne micro-organisms
Record findings on appropriate chart and report any deviation from the norm	Legal requirement to maintain documentation and safeguard client safety through good communications
Dispose of sputum pot as directed in next section below	To prevent cross-infection
Provide client with a clean sputum pot indicating client's name and ensure an adequate supply of tissues	To maintain client comfort and facilitate evaluation
Advise client on the need to maintain hydration and oral hygiene (see Chapter 3) and offer assistance as necessary	To promote client comfort and reduce the risk of complications

Disposal of sputum/oral secretions

Safe disposal of sputum/oral secretions is essential to prevent spread of infection.

Equipment

The equipment required consists of sputum pot, waste bag for clinical waste, and gloves. The procedures and rationales are given below.

Procedure	Rationale
Monitor expectorant, as above, ensuring that any measurements and observations are recorded and reported prior to disposal	To ensure that the client's condition is monitored and to facilitate evaluation of condition
Replace lid on sputum pot and ensure tightly sealed	To prevent leakage of contents
Place in clinical waste bag and seal	To prevent leakage should lid become dislodged
Place in clinical waste bin for incineration	To prevent cross-infection
Wash and dry hands thoroughly	To prevent cross-infection
Provide client with a clean sputum pot indicating client's name and date	To maintain client comfort and facilitate evaluation

Obtaining a sputum specimen

An analysis of a sputum specimen will identify any abnormalities and provide direction for appropriate treatment.

Equipment

The equipment required consists of specimen pot with lid, clearly labelled with client details; request form signed by a doctor, and labelled with client details; specimen bag; tissues; and mouthwash/oral hygiene equipment. The procedures and rationales are given below.

Procedure	Rationale
Explain procedure to client	To increase client co-operation and obtain informed consent
Encourage and assist the client to cough into the specimen pot	Coughing expels the sputum from the lung fields
If experiencing difficulty in obtaining the specimen, gently percuss the client's back in collaboration with the physiotherapist	Gentle percussion dislodges sputum, making it easier to expel
Check that expectorant contains sputum	Test will be invalid if saliva is sent in error
Obtain assistance from physiotherapist if you encounter difficulties in obtaining specimen	Physiotherapists are trained specifically in techniques that may help to obtain a specimen
Replace lid on pot ensuring an adequate seal	To prevent leakage
Put form and specimen pot in specimen bag and seal	To ensure request and specimen arrive at laboratory together
Offer mouthwash/oral hygiene equipment	To maintain client comfort
Send specimen promptly to laboratory	To enable analysis of specimen. Delay in sending the specimen will invalidate the test
Document in client's notes that specimen has been obtained	To ensure consistency of care

Administration of oxygen

Oxygen (O₂) is administered as a corrective treatment for conditions resulting in hypoxia (low level of oxygen in the blood). Oxygen is classed