NHS
Modernisation Agency

Critical Care Programme

AHP and HCS Advisory Group

The Role of Healthcare Professionals within Critical Care Services

June 2002

Foreword

The Critical Care Programme is essential for the modernisation of critical care services. For Comprehensive Critical Care to be truly implemented all healthcare professions must be engaged in the rollout of the Critical Care Programme. Allied Health Professions (AHP) and Healthcare Scientists (HCS) alongside other colleagues have a crucial role in delivering this programme and ensuring needs driven patient centred care.

This document demonstrates the unique and collective contribution AHP and HCS offer to critical care services. The paper's recommendations are key to the achievement of modern critical care services. With shared understanding of these roles, alongside more influence and involvement, all profession can ensure the patient is kept at the centre of all service planning, delivery and evaluation.

I fully support this working paper and its implementation. All healthcare professions need to be empowered to make changes to gain whole systems improvement and improve patient experiences and outcomes.

David Fillingham
Director
NHS Modernisation Agency

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Acknowledgement

This paper is the work of the Critical Care Programme's Allied Health Professions (AHP) and Health Care Scientists (HCS) Advisory Group. The introduction and recommendations are written on behalf of the whole of the Advisory Group. Each individual profession has written the uni-professional sections, to ensure all issues are accurately presented and the flavour of the unique professions not lost.

The AHP Advisory Group is inclusive in its approach to ensure all support services are involved in the modernisation of critical care services. Since the inception of this paper other professional groups such as Healthcare Scientists (represented on the group by Clinical Scientists and Biomedical Scientists) and independent sector representatives have joined the Advisory Group. All ongoing work of the group including future publications will include all such professions.

The abbreviation AHP will be used within this paper to cover all the Healthcare Professions who are members of the AHP Advisory Group.

Please forward any comments relating to this paper or the Critical Care Programme AHP Advisory Group to fran.woodard@doh.gsi.gov.uk

The Role of Healthcare Professions (AHP) within Critical Care Services

Introduction

In April 1999, the Department of Health established a review of adult critical care services and appointed an expert group to develop a framework for the future organisation and delivery of critical care. *Comprehensive Critical Care* the report of the review, was published in May 2000. This supplementary paper outlines the role that the Allied Health Professionals have within critical care services. The AHP Advisory group, which forms part of the Modernisation Agency's Critical Care Programme, have produced this paper.

Background

A comprehensive Critical Care service is the complete process of care for the critically ill, which focuses on the level of care necessary for individual patients. It is a 'whole systems' approach, which encompasses the needs of those at risk of a critical illness, those who have recovered from such illnesses, as well as the needs of patients during the critical illness itself. The proposals in the Comprehensive Critical Care report set out a new way of thinking about critical care, not only impacting on intensive care and high dependency units but acute care as a whole.

Throughout this document ITU/HDU will be referred to as Criitical Care

Comprehensive Critical Care is not a new name for intensive care but is a new speciality based on the severity of illness. Critical care must be patient focused, putting the patient at the centre of the service. There is a new classification for patients that focuses on the level of individual patients needs.

Level 0	Patients whose needs can be met through normal ward care in an acute hospital.
Level 1	Patients at risk of their condition deteriorating, or those recently relocated from higher levels of care, whose needs can be met on an acute ward with additional advice and support from the critical care team.
Level 2	Patients requiring more detailed observations or interventions including support for a single failing organ system or post-operative care and those 'stepping down' from higher levels of care.
Level 3	Patients requiring advanced respiratory support alone or basic respiratory support together with the support of at least two organs systems. This level includes all complex patients requiring support for multi-organ failure.

The characteristics of the new service should be:

- Integration - a hospital wide approach to critical care with services that extend beyond the physical boundaries of intensive care and high dependency units
- Networks – a service that is provided within the context of an integrated network involving several Trusts working to common standards and protocols, providing a comprehensive range of critical care services
- Workforce development – a planned approach to human resources, workforce planning, recruitment issues and education for all professions

- A data collecting culture promoting evidence based practice – a service underpinned by good information ensuring the delivery of an effective service in terms of outcomes for patients

Comprehensive critical care should be delivered locally to a consistent vision and standards, whether in a general or specialist context. Allied Health Professionals are key to the delivery of an effective and efficient service.

Allied Health Professionals (AHP)

AHP play a crucial role and offer unique value to patient care in the critical care setting. Historically, the roles and value of AHP and HCS have been under acknowledged. The Critical Care Programme recognised the importance of AHP in the critical care setting and set up an AHP Advisory Group. This group is comprised of the key AHP within critical care (involving all the key professions other than medicine and nursing). Each professional group represented offers different skills to the critical care setting. The purpose of the group is to provide advice to the overall Critical Care Programme, produce recommendations to ensure involvement of AHP and advise on the implementation of the recommendations. The AHP Advisory Group has produced a coherent piece of work by collaborating to offer a multi-professional approach.

The purpose of this paper is to highlight the unique value and contribution of each profession, and offer recommendations to ensure AHP are represented and involved in the modernisation process. An overview of each professional group is provided, including their purpose and unique value. Key issues facing each profession in contributing to the delivery of high quality patient care are highlighted. The recommendations offered are inclusive of the whole AHP agenda within critical care.

This paper strongly recommends that to influence and modernise critical care to provide better patient care, AHP need to collaborate together more cohesively whilst still ensuring their unique contribution is retained. This is extremely important with regard to communication and representation so the value of AHP is not lost.

AHP offer a wide variety and diversity of unique and different experiences, knowledge, expertise and skills in the critical care setting. These skills need to be recognised and available so that the National Critical Care Programme can have maximum impact on patient access, experiences and outcomes. Critical care provision extends further than the immediate acute need. Additionally, it is concerned with the ongoing clinical care, rehabilitation and quality of life issues that make patient outcomes optimal and ensure where possible discharge home. AHP regularly work across different clinical areas of the hospital, creating important links for the sharing of skills and procedures. AHP also impact positively on patient flows, reducing the problems of moving patients through the system by the provision of continuity of care at all stages and levels. AHP provide high quality and timely care, ensuring the best possible patient outcomes.

Overview of Each Profession

Dietetics

Background

Malnutrition is widespread in both hospitals and the community. The main dietetic goal in critical illness is to prevent the deterioration in nutritional status associated with the stress response. Nutritional intervention alone is unlikely to dramatically alter the overall patient outcome, but starvation will add to mortality and morbidity in both health and disease. Nutritional assessment by a State Registered Dietitian will identify those patients most at risk and those most likely to benefit from nutritional support.

The enteral route is the preferred method of nutrient administration in the critically ill patient as it is more physiological, cheaper and safer than parenteral nutrition. Nutritional support may be provided in the absence of a dietitian, but this may result in poor enteral feed delivery and increased complications through inappropriate choice of feeding route and feed types.

The Role of the Dietitian:

- To identify those at risk of malnutrition, and plan patient specific nutritional interventions on this basis to maximise outcome.
- To provide a consistent and qualitative approach to assessing nutritional requirements regardless of patient location, so providing adequate nutrition without overfeeding.
- To formulate advice for patients and relatives in relation to the clinical situation e.g. address issues relating to early satiety, taste changes, muscle wasting, support and follow-up at home.
- To manage the changing nutritional needs of patients between critical care, the ward and home.
- To advise on the most suitable enteral or parenteral feeding routes and optimal feed composition, thereby reducing feed related complications.
- To develop, implement and revise nutrition protocols in association with the multi-professional team, to ensure all patients receive timely, appropriate and cost-effective nutritional support, including guidelines for initiating feeds out-of-hours.
- To evaluate nutrition-related research and implement evidence-based practice.
- To lead nutrition related audit and research to widen the evidence base.
- To provide ongoing education and training for clinicians, nurses and AHP and act as a resource for other professionals.

The Comprehensive Critical Care report states that “critical care must be patient focused, putting the patient at the centre of the service” and that “therapy staff are key to the delivery of an effective and efficient service”. The role of the dietitian at different points throughout care is outlined using the new critical care classifications:

Level 3 – The dietitian works as an integral part of the critical care team to manage all forms of enteral and parenteral nutrition. This includes advice on feeding routes and feed types for complex patients with multiple organ failure.

Level 2 – Seamless care between the Critical Care Unit and the ward can be provided to avoid the deterioration in a patient’s nutritional status, which may compromise rehabilitation and discharge. Dietetic intervention to manage organ failure e.g. renal or hepatic failure may also be required.

Level 1 – Patient centred nutritional intervention takes place on the basis of the changing clinical condition, and the likely transition from enteral or parenteral nutrition to diet will occur. Education for home and discharge planning will begin.

Level 0 – Dietitians work with nursing and medical staff to have processes in place to identify those patients who are nutritionally "at risk" e.g. through developing and validating screening tools, thereby ensuring timely referrals for dietetic advice. Links with catering will ensure suitable patient menus are in place to enable dietary requirements to be met. The use of nutritional supplements is monitored to ensure their use is appropriate and cost-effective. Dietitians can manage the changing nutritional needs of a patient between the hospital and primary care settings. This includes patients requiring artificial nutritional support (e.g. enteral tube feeding) at home/in nursing homes; having trained personnel in place can expedite discharge and, if resources permit, the facility to undertake home visits may prevent re-admissions to the acute setting. Input into outreach follow-up clinics will identify those still nutritionally at-risk, help prevent further deterioration in nutritional status and so the risk of readmission/complications. Support and education for the patient and carers will occur prior to and following discharge.

Examples of Improving Practice

A dedicated dietetic service to ICU was created in Edinburgh Royal Infirmary in 1998. Audit demonstrated that within 6 months of employing a Senior I ICU dietitian, total enteral nutrition increased by 19% and the prescription of specialist feeds decreased by 50%. This resulted in improved patient care through more appropriate prescribing and a 16% cost improvement on the enteral feeds budget.

A research programme to examine nutritional issues in ICU patients evolved. It is now recognised that nutritional rehabilitation of patients post ICU in hospital is poor and more than a third of ICU patients discharged into the community remain nutritionally depleted with poor nutritional intervention 3 months post discharge from ICU.

Contact: Lynne Douglas, Senior Dietitian, Edinburgh Royal Infirmary. 0131 536 2579.

Regular dietetic input into the ICU at the Northern General Hospital, Sheffield, has resulted in the development and implementation of an enteral feeding algorithm and enteral feeding guidelines. Audit has demonstrated that following their introduction there has been a reduction in the inappropriate use of parenteral nutrition (with associated cost savings), early enteral feeding has been facilitated and enteral feed delivery has improved from 55% to 87% of that prescribed through revised use of prokinetic agents and increased use of jejunal feeding.

Contact: Carole Glencorse, Senior Dietitian, John Radcliffe Hospital, Oxford. 01865 221703.

A dietitian is in post as a Practice Development Facilitator for critical care at Ashford and St. Peters' NHS Trust. Her remit is to develop a Critical Care Practice Development Forum, provide post-graduate training for dietitians and other health care professionals on nutrition in the critically ill (including bedside learning), develop an outreach service, and promote clinical audit and effectiveness.

Contact: Ruth Towell, Chief Dietitian, Ashford and St.Peters NHS Trust. 01932 722916.

Key Issues

- Nutritional therapy should be an integral part of patient care and systems must be in place to ensure dietetic time is funded in line with service developments. To provide a dedicated service to critical care, 0.05-0.1 WTE per bed is suggested. (level 2 - level 3 beds)
- There is a need to ensure that a patients' nutritional status does not deteriorate post Critical Care by ensuring dietetic input into outreach services and follow-up clinics, thereby avoiding nutrition related

complications and facilitating rehabilitation.

- There needs to be a planned approach to human resources recognising not only the need for a better career structure and ongoing post-graduate training in order to recruit and retain experienced dietitians (at least Senior I Grade) in critical care, but also the financial and professional support to facilitate this. The advent of Dietetic Consultants may promote this.
- Defined core competencies need to be developed for dietitians working in critical care to enable them to fulfil extended roles e.g. prescribing, and to ensure that they have the critical appraisal skills to regularly audit, research and challenge practice.

Further Reading

Lennard Jones JE (1992) A positive approach to nutrition as treatment. London: Kings Fund Centre
Green C (1999) Existence, causes and consequences of disease-related malnutrition in the hospital and community, and clinical and financial benefits of nutritional intervention. Clinical Nutrition 18(Suppl. 2): 3-28
Koretz RL (1995) Nutritional supplementation in the ICU. How critical is nutrition for the critically ill? American Journal of Respiratory and Critical Care Medicine 151: 570-573
Moore FA, Feliciano DV, Andrassy RJ et al (1992) Early enteral feeding compared with parenteral reduces post-operative septic complications. The results of a meta-analysis. Annals of Surgery 216(2): 172-183
Anderson ID, Fearon KCH (1995) Paralytic ileus and enteral feeding. A review of treatment in the critically ill. Part II. British Journal Intensive Care April: 117-121
Kudsk KA (1994) Gut mucosal nutritional support - enteral nutrition as primary therapy after multiple system trauma. Gut Suppl. 1: S52-S54
MacFie J, Bradford I, O'Boyle C et al (1996) Bacterial translocation and nutritional support. BMJ 195-201
Comprehensive Critical Care. A Review of Adult Services. Department of Health May 2000

Occupational Therapy

Background

Occupational Therapists enable patients who are or have been critically ill, to maximise their ability to carry out every day activities and interact as fully as possible within society. This entails prevention of complications and assistance to overcome and adjust to the physiological and psychological effects of having organ system failure.

To be effective Occupational Therapists take a patient led approach involving patients, relatives and carers in assessment, setting goals to reflect future aspirations, assisting all involved to make informed decisions about the future and engagement in the treatment plan.

Occupational Therapist's training encompasses mental health and physical medicine. Occupational Therapists work across primary, secondary and tertiary care settings. Critically ill patients are not only managed within the secondary and tertiary settings, but also in the primary care setting at home. For example, occupational therapists have been involved in assisting patients managing their chosen lifestyle whilst on a ventilator at home.

The Role of Occupational Therapists

Occupational Therapists can be involved at any stage of a patient's pathway, irrespective of severity of illnesses. However, for the purposes of this document outcomes and types of intervention are listed from Level 3 to follow-up. Interventions are reviewed and graded depending on the ability of the patient.

Level 3

Prevent complications and overcome/adjust to the physiological effects of organ system failure.

1. To position a patient to prevent contractures, joint deformity and pain by
   - Providing or making appropriate splints
   - Carrying out passive range of movement exercises
   - Advising and teaching nursing staff techniques for positioning and handling
   - Assessing for and providing appropriate seating including wheelchairs
2. To prevent pressure sores through the provision and management of appropriate pressure relieving cushions
3. To improve range of movement, power and control through activities and exercise

Facilitate the patient to overcome and adjust to the psychological impact of having organ system failure and loss of function

1. To provide reassurance and support to patients and carers
2. To assist patients and carers in understanding the patients' condition and feel confident about having the ability to cope effectively
3. To explore and assist patient and carers in adjusting to the potential changes in relationships
4. To assist patients to reduce stress factors and develop coping strategies e.g. anxiety management, relaxation
5. To prepare the patient and their family to plan for the future
6. To overcome the effects of cognitive and perceptual dysfunction through retraining and the use of compensation techniques

Begin the process which enables patients to take control of their life, adapt to loss of function and maximise their ability to carry out every day tasks.

1. Assessment and retraining in basic personal care activities e.g. eating, toileting
2. To advise on energy conservation and fatigue management techniques
3. Assessment and facilitation for the provision of equipment and adaptations to the environment to aid activities of daily living (this includes wheelchairs and environmental controls)
4. To assist the patient in their management of a meaningful lifestyle including at a basic level, sensory stimulation and providing meaningful activity whilst in hospital and at a higher level, engagement in leisure pursuits and work
5. To provide information which will enable patients and carers to access appropriate resources.

Level 2

Interventions include all those in level 3 and in addition

1. Review and re-grading of treatment e.g. providing splints to prevent contractures at night only if patient is more active during the day
2. Education and advice on every day activities and how to take precautions post surgery

Level 1

Interventions include those in level 3 and 2 and in addition

1. To continue rehabilitation to enable the patient to take control of their life, adapt to loss of function and maximise their safety in carrying out every day tasks
2. To start planning discharge from hospital with the patient and carers

Level 0 and Follow up

Interventions include those in levels 3, 2 and 1 and in addition

1. To resettle the patient at home
2. To continue the rehabilitation to maximise and/or maintain their ability to carry out every day tasks

Examples of Improving Practice

The majority of published research into the role of Occupational Therapy in Critical Care is American. However, there are examples of improving practice within the UK

At the Royal Brompton Hospital in Central London an Occupational Therapy assistant is employed in critical care to carry out a range of interventions including early rehabilitation programmes, monitoring of splints and pressure relief and carrying out relaxation techniques.

Contact: Victoria Otley Groom, Head Occupational Therapist, The Brompton Hospital, 020 7351 8961

At the West Middlesex University Hospital patients who were conscious but had to remain in supine lying were provided with book stands and prism glasses. As a result they are able to read books and news papers which enabled them to be orientated, stimulated and have an awareness of what was going on outside their immediate environment.

Contact: Jacki Hunt, Head Occupational Therapist, West Middlesex University Hospital, 020 8321 5133

Key Issues

- Occupational Therapy should start when the patient is still critically ill in order to maximise the patient's recovery and function. Early and effective and treatment should reduce the patient's length of stay in hospital and the costs of resolving complications e.g. contractures.

- Often critical care is seen only as the act of saving life and preventing organ system failure, with the resultant physiological and psychological effects not being considered. Consequently, people within and external to the profession do not immediately see a role for Occupational Therapy in critical care. There is also a lack of published research specifically into the Occupational Therapy role and inadequate networks to disseminate examples of good practice. The lack of recognition of the role in critical care makes it difficult to access resources appropriate to meet the need of the patient.

- As with other Allied Health Professionals, there is a national shortage of Occupational Therapists. Whilst it is important for some Occupational Therapists to be highly skilled in the management of critically ill patients, some of the interventions can be delivered by ward or community based therapists. Recognition is also given to the fact that Occupational Therapists do not always need to provide direct intervention to the patient but can assist in training other professions and support staff to be competent to carry out specific tasks.

Further Reading

Affleck AT (1986) Providing Occupational Therapy in an Intensive Care Unit. American Journal of Occupational Therapy May 40(5): 319-22
Willard and Spackman's Occupational Therapy 8th Edition (1993) Chapter 23. Acute Care Occupational Therapy by Mary Torrance, JP Lippincott Co, Philadelphia
Hind M, Jackson D, Andrewes C, Fulbrook P, Galvin K, Frost S (2000) Health Care Support Workers in the Critical Care Setting. Nursing in Critical Care 1: 31–39
Batteson R (1997) A strategy to Improve Nurse/Occupational Therapist Communication for Managing Patients with Splints. British Journal of Occupational Therapy 60(10): 451–455

Clinical Pharmacy

Background

Safe and effective drug therapy is an essential component in the care of every patient, and is delivered by a team including doctors, nurses, pharmacists, and other professionals. Critically ill patients by their very nature, present clinical practitioners with a wide variety of therapeutic and technical challenges, which require a complex range of pharmaceutical interventions. Clinical pharmacists are uniquely qualified to offer specialist knowledge and expertise on drug therapy, and therefore are key members of the critical care team ensuring that patients receive safe and effective treatment.

The Role of the Pharmacist

Clinical pharmacists are able to offer a wide range of knowledge and expertise to optimise the management of individual patients, and to contribute to the overall policies and guidelines, which operate in critical care area(s). The underlying philosophy of clinical pharmacy is encompassed in the term Pharmaceutical Care. This describes a patient focused approach, which addresses all possible pharmaceutical interventions in the context of a fully integrated multi-professional plan of care. To maximise the benefits of this approach, it is essential that ward-based pharmacists are included in the clinical team caring for this group of patients.
The management of drug therapy in the critically ill is challenging, and constantly changing due to technical and therapeutic developments. Particular challenges include the presence of multiple organ failure, which can affect drug disposition, a high incidence of drug-induced side effects, and complex drug regimens, which require a range of administration routes. Pharmacists are able to provide a wide variety of contributions including:

- Advice on the most effective evidence based therapies for patients.
- Constant review of overall prescribing, and the development of evidence based protocols and guidelines e.g. sedation, guidelines for the prescribing and administration of antibiotics.
- Regular auditing of prescribing and benchmarking with other hospitals.
- Dosage modification to allow for age, altered drug handling in renal and/or liver impairment, and any supportive therapies e.g. haemofiltration
- Advice on the optimum administration technique to guarantee that drug therapy is delivered effectively e.g. giving drugs via enteral tubes in patients who are nil by mouth or with a non-functioning Gastro-Intestinal (GI).
- Ensuring the compatibility of intravenous infusions to prevent adverse effects e.g. failure to deliver drug, precipitation and line blockage.
- Optimising fluid and electrolyte balance by checking that drugs are given in the optimum fluid and volume e.g. giving drugs in restricted volumes.
- Monitoring drug therapy to prevent, or allow for drug interactions and to advise on measurement and adjustment of therapeutic drug levels.
- Monitoring adverse drug events and drug related incidents. One of the Department of Health's objectives is to reduce their incidence of drug errors by 40%. This is described in detail in the Audit Commission Report: A Spoonful of Sugar.
- Initiating research in areas where there is a lack of published information to inform prescribing.
- Ensuring that changes in drug regimens are managed appropriately as patients recover e.g. reviewing prescriptions for arrhythmias.
- Reviewing the costs of different drug therapies to ensure economic use of resources, whilst ensuring that treatments are safe and effective.

Ward based clinical pharmacists need to be involved in patient care at all levels of critical illness. The basic components of pharmaceutical care should be available in all instances, but the degree of specialisation of the individual pharmacist will by necessity vary, according to the nature of the patients being managed.

Level 3 – A specialist critical care pharmacist should be an integral part of the Critical Care team. This person should also provide advice, support, and education to pharmacy and clinical colleagues working at all levels of critical illness, and be the key pharmacist liaising with the outreach team.

Level 2 – The pharmaceutical care for the Critical Care patient should be provided by either a specialist critical care pharmacist, or another experienced pharmacist working in close collaboration. The level 2 pharmacist will have a close working relationship with the outreach team.

Level 1 – Patients are often seen in non-critical care areas. It is essential that all clinical pharmacists have the basic skills to care for level 1 patients. The critical care specialist pharmacist has a key role in optimising this care by educating and supporting colleagues.

Level 0 – Level 0 patient's needs should be met through the normal pharmaceutical care in an acute hospital.

Examples of Improving Practice

The standard method for monitoring clinical pharmacists is by recording interventions and reviewing their impact on patient care. There are a few published studies e.g. pharmacists attending critical care physician rounds in Boston USA were able to reduce the number of preventable adverse drug events from 10.4 to 3.5 per 1,000 patient days.

Critically ill patients frequently receive multiple intravenous infusions. Due to the restricted availability of access, and the number of drugs prescribed, 2 or more agents are often given via the same IV lumen. Pharmacists in St.George's Hospital, London, demonstrated that of the 42 combinations of drugs given only 21 (50%) were proven to be compatible, 20 (48%) were of unknown compatibility and 1 (2%) were incompatible. Apart from a potential failure to deliver therapy as prescribed, incompatibility can cause line blockages, embolism, and production of toxic substances. Pharmacists can provide evidence based practical advice to ensure that IV drug therapy is delivered effectively.

Key Issues

- Clinical pharmacists should be an integral part of the critical care team to ensure safe and effective drug therapy. In common with AHP, there is considerable national variability in the levels of input and funding of pharmacists in critical care. Acute Trusts should therefore fund at least 0.05-0.1 WTE Grade D specialist clinical pharmacist for each single Level 3 bed and for every 2 Level 2 beds.
- Basic critical care should be a core skill for all clinical pharmacists. The majority of formal clinical pharmacy education occurs at post-graduate level through clinical diplomas. Many of these courses do not include critical care training in their syllabus. This shortfall needs addressing.
- A better approach to human resources within pharmacy to improve the career structure and to recruit and retain experienced specialist pharmacists is needed. Pharmacists should be able to advance beyond intermediate grades without sacrificing clinical input for managerial duties. The advent of consultant pharmacists will facilitate this.

Further Reading

Hepler CD, Strand LM (1990) Opportunities and responsibilities in pharmaceutical care. American Journal of Hospital Pharmacy 47: 535-543
Leape LL et al. (1999) Pharmacist participation on physician rounds and adverse events in the intensive care unit. JAMA 283: 267-270
Dean B. Poolman R (1996) Are incompatibilities a problem? Pharmacy in Practice Nov: 371-372

Physiotherapy

Background

With the ever-changing face of the NHS, Physiotherapy has adapted and advanced to meet the needs of patients and the service. A key example is, as experts in the cardio-respiratory system, the major role that Physiotherapy plays in the management of the critically ill patient. Physiotherapy provides a holistic approach to assessment, analysis of problems and risk factors and, through clinical reasoning, provides treatment and rehabilitation from admission to discharge and through into the community. Evidence-based practice, audit, research and outcome measures support physiotherapy and facilitate the appropriate and effective use of skills.

Physiotherapists:

- Are autonomous practitioners with in depth knowledge and skilled assessment and clinical reasoning skills across all grades
- Have a patient centred and flexible approach to all areas of care e.g. respiratory, rehabilitation, neurology, musculo-skeletal and manual handling
- Have a specific knowledge base in physiology and anatomy (applied) which is fundamental to all Physiotherapy
- Are patient centred practitioners who give continuity of care from acute admission through to discharge and into the community
- Are educators (provide a resource) in both the prevention and treatment of patient's problems working within the setting of the multi-professional team
- Have excellent prioritisation and delegation skills to manage their caseload efficiently and effectively

The Role of the Physiotherapist

Using the new patient focused critical care classifications, the role of the physiotherapist at the different levels of care is outlined. The same physiotherapist may deliver the care at all levels or alternatively, a team of physiotherapists may manage the care of the patient. The physiotherapy input at the various levels includes:

Level 0

Early identification and management of patients who benefit from physiotherapy to prevent deterioration and restore the patient to their pre-admission functional level

Preparation of the patient and their carers for their return to the community

Facilitation of early discharge with appropriate follow up in the community

Early identification of patients who will be unable to return to their previous environment or level of function and facilitation of appropriate placement

Level 1

Initiation or continued rehabilitation with the aim of restoring the patient to their pre-morbidity level of function

Identification of patients at risk of deterioration and maintenance of close links with the critical care outreach team (where present) or the Critical Care team

Optimisation of the patient's respiratory function with early mobility, positioning, advise on oxygen therapy and teaching the patient self-care breathing exercises and chest management

Level 2

Initiation of early rehabilitation in line with risk management protocols

Treatment of patients with complicated respiratory conditions and management of respiratory failure supported by knowledge of indications and application of continuous positive airways pressure (CPAP), intermittent positive pressure breathing (IPPB) and non-invasive ventilation (NIV)

Management and treatment of patients with tracheostomies and facilitation of weaning and early decannulation

Support and education for nursing and medical colleagues in the above mentioned areas

Level 3

Supporting nursing and medical staff in preventing further respiratory complications in both mechanically ventilated and self-ventilating patients

Treatment of respiratory complications especially acute lobar collapse

Integral part of providing ventilator weaning strategies and protocols

Expert handling, positioning and limb care of the sedated patient

Identification of safe and expedient rehabilitation of patients including the use of tilt tables, standing frames and specialist seating

Examples of Improving Practice

- The development of formalised competencies for all staff working in critical care
- Extended scope practitioners undertaking tasks such as bronchoscopies and arterial blood sampling
- Supporting and, in some organisations, setting up non-invasive ventilation services
- Improved care of respiratory patients in the community by to the development of specialist roles which facilitate early discharge of respiratory patients and prevent readmission to hospital
- Extended scope practice with weaning patients from mechanical ventilation with consideration of respiratory muscle function
- A key role in the multi-professional care of tracheostomy patients and the setting of standards of care
- Instigation of early dynamic rehabilitation of patients in Level 2/3 care in line with risk management protocols and patient needs
- Follow-up clinics post discharge from critical care to maximise outcomes

Key Issues

- Recruitment and retention issues – to increase and support the number of physiotherapy staff with specialist skills e.g. Clinical Specialists and Physiotherapy Consultants
- To have adequate resources to support seven-day working
- To gain direction, support and resources for key research topics from our special interest group (Association of Chartered Physiotherapist in Respiratory Care), the Chartered Society of Physiotherapy and other national bodies
- To continue to develop clinical guidelines reflecting evidence-based practice

Further Reading

Hough A (2001) Physiotherapy in Respiratory Care. An evidence-based Approach to Respiratory and Cardiac Management 3rd Edition. Nelson Thormes, Cheltenham, UK

Pryor J, Webber B (1998) Physiotherapy for Respiratory and Cardiac Problems 2nd Edition. Churchill Livingstone, London, UK

Stiller K (2000) Physiotherapy in Intensive Care. Towards an Evidence-Based Care. Chest 118(6): 1801-1813

The Psychologist

Background

Anxiety, depression, panic attacks and post traumatic stress disorder (PTSD) are common following critical illness. In addition recall of frightening delusions, hallucinations or nightmares from the period of critical illness in intensive care appear to be a major contributor to these psychological problems. There are two main goals for psychologists following critical illness. The first goal is to help patients to come to terms with such memories and their illness. The second is to treat those patients with major psychological distress in the hope of reducing the incidence of chronic psychological morbidity. Assessment by a psychologist will identify those patients most at risk and those most likely to benefit from psychological support.

Early assessment and psychological intervention may prevent the development of problems such as PTSD. Psychological support may be provided in the absence of a psychologist initially, but patients with high levels of symptoms are more likely to have a poorer psychological outcome and require psychologist input.

The Role of the Psychologist

- To identify those at risk of psychological morbidity, and plan patient specific interventions on this basis to maximise outcome.
- To provide a consistent and qualitative approach to assessing psychological recovery.
- To formulate advice for patients and relatives in relation to the clinical situation e.g. address issues such as panic, agoraphobia, sleeplessness, nightmares and flashbacks.
- To ensure all patients receive timely, appropriate and cost-effective psychological support by the development, implementation and revision of protocols in association with the multi-professional team,
- To evaluate psychological-related research and implement evidence-based practice.
- To lead research to widen the evidence base.
- To provide ongoing education and training for clinicians, nurses and Allied Health Professionals and act as a resource for other professionals.

Examples of Improving Practice

A dedicated psychological service to ICU was created in Whiston Hospital. Research had shown a high incidence of anxiety, depression, panic attacks and PTSD. A fast track referral system to the hospital clinical psychology services was initiated, with patients being assessed initially by the ICU research fellow (psychologist) both on the general wards and in the ICU follow-up clinic. This has resulted in improved patient care through more appropriate referrals to clinical psychology services and speedy intervention for vulnerable patients.

Contact: Dr Christina Jones, Research Fellow, Whiston Hospital. 01514 2616100 extension 2382

A psychologist assesses patients attending the ICU clinic at Hope Hospital Salford during their outpatient appointment. The ICU follow-up nurse can also refer patients from the general wards prior to going home if he/she feels they would benefit from seeing a psychologist. This has resulted in more appropriate referrals to the psychology services and speedy assessment of patients.

Contact: Dr Amanda Lurie, Department of Behavioural Medicine, Hope Hospital, Stott Lane, Salford.

Key Issues

- Psychological support, where needed, should be an integral part of patient care in hospital and a part of follow-up services. Systems must be in place to ensure a psychological service is funded. To provide a dedicated service to recovering intensive care patients, 0.05 WTE per level 3 bed is suggested.
- To recognise the need for a better career structure and ongoing post-graduate training in order to recruit and retain experienced psychologists in critical care (with at least 5 years post graduate experience in physical health settings).

Further Reading

Jones C, Humphris GM, Griffiths RD (1998) Psychological morbidity following critical illness – the rationale for care after intensive care. Clinical Intensive care 9:199-205
Schelling G, Stoll C et al (1998) Health-related quality of life and post-traumatic stress disorder in survivors of adult respiratory distress syndrome. Critical Care Medicine 26: 651-659
Perrins J, King N, Collings J (1998) Assessment of long-term psychological well-being following intensive care. Intensive and Critical Care Nursing 14: 108-116
Jones C, Griffiths RD, Humphris G (2000) Disturbed memory and amnesia related to Intensive Care. Memory 8(2): 79-94
Jones C, Griffiths RD, Humphris G, Skirrow PM (2001) Memory, delusions and the development of acute post traumatic stress disorder-related symptoms after intensive care. Critical Care Medicine 29(3): 573-580
Foa EB, Keane TM, Friedman MJ (2000) Effective treatments for PTSD. Practice Guidelines from the International Society for Traumatic Stress Studies. Guildford Press, London

Diagnostic Radiography

Background

A key component of care for all levels of critically ill patients is the diagnosis and monitoring of clinical conditions. Radiographers, by utilising a combination of patient focused and complex technical skills, are able to provide this front line care using imaging equipment both within and without the diagnostic department.

Improving access to technology in combination with role extension and knowledge development is being used to great effect by Radiographers to support the critical care patient along the care pathway. Many critical care patients undergo interventional procedures provided by the multi-professional imaging team. Radiographers, Radiologists and Radiology nurses contribute significantly to a decrease in major surgery and hence improved patient outcomes by offering this rapid access service. Additionally more complex interventional procedures or palliative treatments are undertaken on patients with severe medical problems under the supervision of this multidisciplinary team. Open Access Magnetic Resonance (MR) and Spiral Computed Tomography (CT) scanners have significantly reduced examination time allowing patients to undergo imaging and often treatment within short timescale.

The advent of digital imaging has meant that innovations such as Patient Archive Communications System (PACS) are now becoming more widespread, allowing image viewing to be undertaken from remote viewing stations on the wards or in clinics. Digital image transfer allows “expert” opinion to be accessed from other hospitals or consultants outside the base hospital. Instant access to images has reduced delays in patient treatment and put an end to ‘lost films’. Digital image manipulation by radiographic staff allows maximum utilisation of data to reduce patient radiation dose e.g. to demonstrate both soft tissue and bone on a single image.

The Role of the Diagnostic Radiographer

Diagnostic radiographers are integral to the critical care patient from initial diagnosis, through treatment to eventual discharge. The role encompasses a range of imaging modalities that may take place either within an imaging department, the ward or theatre environment. Role extension has changed practice and will continue to further develop, with radiographers undertaking more fluoroscopic examinations and interventional procedures.

Radiographers

- Provide high quality imaging services whatever the location and condition of the patient
- Utilise a diverse range of modalities including plain film imaging, fluoroscopy, ultrasound, MRI, CT and radionuclide imaging
- Liaise with clinicians to recommend appropriate investigations in order to answer clinical questions
- Form a major part of the continuum of care from ‘trauma team’, to theatre and imaging on the ward, through follow up to discharge
- Provide an immediate opinion/report on image appearance, thereby influencing timely clinical management
- Are key members of the critical care team by the provision of a high level of input into patients’ diagnoses and on-going monitoring throughout treatment

Examples of Improving Practice

Radiographers at the Central Middlesex Hospital's Ambulatory Care and Diagnostic Centre (ACAD) have undertaken advanced life support training and have integrated into the interventional team by extending their roles and working with other healthcare professionals. This demonstrates that radiographers work across the whole patient pathway providing real continuity of care from admission to discharge.

Key Issues

- There is an acute problem with recruitment and retention of radiographers throughout the profession
- Radiographers have a high level of input into patients' diagnoses and provide monitoring throughout treatment, however are often not viewed as a key member of the critical care team
- A lack of career structure within general radiography has led to significant problems with staffing of core services and provision of ongoing development for staff wishing to remain in these areas
- A lack of adequate staffing levels leads to rationing of examinations and withdrawal of specific services out of normal working hours
- The acknowledgement of the contribution of radiographers need to be accompanied by appropriate grading
- Traditionally radiography has developed as a modality based profession, specialising in areas such as CT, MRI, ultrasound rather than a 'patient centred' approach e.g. trauma or critical care
- There is a lack of awareness amongst radiographers of the scope of Comprehensive Critical Care and the impact on their role

Speech and Language Therapy

Background

Patients in critical care frequently present with compromised swallowing and communication abilities. This leads to a number of manageable clinical risks:

Risk:	Risk Reduced by:
(1) Aspiration pneumonia (2) Compromised nutrition and hydration	Timely and appropriate management of oral intake
(3) Inability to communicate effectively (for example around clinical need such as pain)	Facilitation of appropriate communication strategies maximizing abilities
(4) Compromised psychological well-being	Facilitation of · The social act of eating and drinking · Social interaction including with the family. · Independence, control and dignity · Access to services, including the multi-professional team · Management of anxiety and frustration

The Role of the Speech & Language Therapist

In critical care, Speech and Language Therapists (SLTs) can offer specialist knowledge and expertise in the areas of speech/language/communication and swallowing. This involves accurate assessment, diagnosis and management as part of the multi-professional team. Patients identified as being at risk include those with neurological conditions, following head and neck surgery or neurosurgery. Particular areas of skill include tracheostomy management and the impact on communication and swallowing, and the use of specialist equipment such as communication aids and speaking valves.

SLTs can contribute to the team's management of the ongoing and changing needs of the patient, making recommendations regarding the safety and management of oral intake (preventing development of associated medical complications) and the facilitation of effective communication. This is achieved by the sharing of skills within the multi-professional team.

Intervention with the patient involves giving advice, making recommendations and therapy activities as appropriate, as well as support and education for the patient, their family and other carers.

SLTs are in a strong position to offer patient centred care as the work is frequently across a number of specialist teams and settings, and across all levels of dependency. Care delivered is determined by clinical need in speech, language, communication or swallowing ability, rather than the level of dependency from a medical point of view. Services are therefore delivered across primary, secondary and tertiary care, in the community and within the hospital, and across levels of dependency 0 – 3 wherever is most appropriate to the client. SLTs are an essential member of the critical care multi-professional team and support seamless transition of patients throughout the levels of dependency.

Examples of Improving Practice

1. Development of multi-professional tracheostomy teams for optimal care of the tracheostomised client.

- Guidelines for the Care of Patients with Tracheostomy at St George's NHS Trust – Version 2. Management guidelines developed by a multi-professional working group, designed for use by ward nursing staff. Associated monthly nurse training sessions and national study days (3 times a year).
  Contact: Further information – Rebecca Miller – 01303 260551. Copies available from Sims Portex – 01303 260551
- Multi-professional tracheostomy team at the National Hospital for Neurology and Neurosurgery reviews all ward tracheostomy patients weekly. The team delivers outreach care, setting and reviewing parameters for weaning, effecting good tracheostomy procedures, and maintaining care. There is established multi-professional tracheostomy training for ITU and ward staff, and a multi–professional team documentation process for weaning. Education leaflets for patients with tracheotomy tubes and the effects on breathing, swallowing and communication have been produced.

  Contact: Sue McGowan – susan.mcgowan@ulclh.org 020 7837 3611 Bleep 735

2. Dysphagia training of nurses for screening patients at risk of swallowing difficulties, to reduce risk and length of time patients are kept nil by mouth where appropriate

- Dysphagia trained nurses scheme at Southern Derbyshire Acute Hospitals NHS Trust - nurses are trained to screen at-risk patients to make dietary recommendations and to refer to SLT as appropriate. This has resulted in improved team working as well as reducing psychological effects caused by not eating/drinking orally.

  Contact: Carol Hardy – 01332 625891

Key Issues

1. It is clear that SLT has an essential part to play in the multi-professional care of critically ill patients. However, multi-professional working is often a key point of difficulty, possibly due to a lack of awareness of the SLT's role, poor relationships within the team, lack of protocols for working, or lack of SLT time to contribute fully to multi-professional working.

2. The critically ill patient often poses a difficulty in overall management of the SLT caseload. In general hospitals, these referrals are infrequent, but demand a high intensity of input with an ability to work very flexibly. There are anecdotal reports of increasing referrals without corresponding increase in resources, which leads to difficulty in meeting the required short response times, and therefore skewing overall caseload prioritization. This may be heightened where SLT allocation is omitted from critical care outreach teams.

3. It is acknowledged that SLT care of the critically ill patient requires specialist training and expertise. This includes advanced level dysphagia skills (RCSLT dysphagia working party 1999), knowledge of ICU procedures, tracheostomy care and management, ventilation and the psychological impact on patients and their families. Training needs should be identified and provided for, and support and supervision made available to SLTs involved in this area.

Further Reading

Logemann J (1998) Evaluation and Treatment of Swallowing Disorders – Chapter 5. Pro-ed.
St George's Hospital Trust (2000) Guidelines for the Care of Patients with Tracheostomy Tubes. Published by Sims Portex Ltd
Dikeman K.J. and Kazandjian M.S. (1997) Communication and Swallowing Management. Singular Publishing Group, Inc San Diego & London

Critical Care Technology

Background

A Critical Care Technologist is a specially trained professional, with expert knowledge of the technology involved in the delivery of critical care to patients as part of a multi-professional team**.** Unfortunately, not all Critical Care Services have full time Critical Care Technologists as part of the clinical team and, as a result, many other health care professionals are unaware of the existence and potential of the role. In the British Isles, around 270 hospitals employ some 102 Critical Care Technologists in Critical Care Areas (2002 data). The Critical Care Technologist acts as an interface between the medical, nursing and paramedical staff in such a way to promote and develop the safe and effective use of technological systems for the benefit and care of critically ill patients.

The Role of Critical Care Technologists

The role of the Critical Care Technologist differs between hospitals and Trusts, therefore people's perception of the role varies greatly. Some of the duties that are performed include haemodynamic monitoring, clinical measurement, haemofiltration, intra aortic balloon pumping, Extracorpeal Membrane Oxygenation (ECMO), ventilator & respiratory support, blood gas analysis, near patient testing, inter/intra hospital patient transfers, management, training, research & development, audit, procurement of equipment and budgetary control. The role is part of a multi-professional team supporting the clinical needs of the patient.

Patients admitted to the Critical Care Unit will have failure of one or more organs requiring intensive treatment, monitoring and support. Critical Care Technologists have a clinical role to play along with the medical and nursing team. This is particularly helpful at the time of admission to the unit when staff are busy. The technologist can provide equipment necessary for any procedure needing to be performed (for example preparing for central line or pulmonary artery (PA) catheter insertion). If a PA catheter is used, the technologist can perform the pulmonary artery wedge pressure and cardiac output measurements and derive a cardiovascular profile and report this result to the medical team.

The emergence of microprocessors has seen a major move towards bedside biochemical analyses in the critical care environment. Blood gas analyses, plasma lactate, sodium and potassium, glucose, actinomycin and carboxyhaemoglobin are just some of the assays available. The frequent analyses of these parameters complements the trends in haemodynamic, ventilatory and fluid management observations by the nursing staff at the patient's bedside, thus providing the medical staff a complete picture of the patient's current condition. As well as maintaining these machines, the technologist will oversee the quality control working closely with the pathology department. The technologist can also undertake education on the use of these machines. On occasion, more specialised therapies are needed such as administration of nitric oxide. The technologist will set up the equipment used for the administration of the gas, test for leaks, calibrate the monitoring devices and connect the gas to the ventilator. Should the patient require further intervention such as extra-corporeal support, the technologist will set up the circuitry and oversee the technical aspects of the treatment working closely with the nursing and medical staff and the perfusion department. When this programme is underway a technologist is on the unit 24 hours a day for the duration of the treatment.

For patients who are in renal failure and who require haemofiltration, the technologist will set up the haemofiltration machine and set up the trolley for the insertion of the haemofiltration line. Once the medical staff are happy with the placement of the line, the technologist will connect the patient to the haemofiltration machine and set it running as laid down by the unit's protocol. When confident that the machine is working correctly, and that the pressures in the lines are acceptable, the technologist will hand over to the nurse who will do the day to day running of the haemofiltration. The Critical Care Technologist will remain available for advice and to help in troubleshooting should any problems arise.

Some technologists undertake extended roles such as members of the cardiac arrest team, and can provide assistance in the accident & emergency department during the resuscitation phase, the transfer to ICU or

other departments. Whilst performing this duty, the technologist may be called upon by the medical team to do emergency procedures, such as intubation, defibrillation and the insertion of vascular cannulae.

Recent introductions of Patient at Risk and Outreach Teams have meant that the technologist plays a vital role in supporting the clinical needs of the patient within the hospital environment as well as out in the community.

Examples of Improving Practice

- Raising the profile of the role
- Establishment of career structures
- Establishment of professional standards
- Develop and maintain competency
- Define and develop training programmes
- Provide support systems for other professionals
- Establish links with other professional and government/legal bodies
- Acquire and disseminate knowledge necessary for the use of technological systems
- Aim to gain professional state registration to enable professional regulation

Key Issues

- It is clear that the Critical Care Technologist has an essential part to play as part of the multi-professional team employed within the critical care environment. It is important that the profile of technologists is raised and that the standard of education, training and retention of staff continues at a high level so as to improve and enhance the care given to the patient. Discussions have commenced with the University of Westminster and Anglia Polytechnic University on a distance-learning scheme from a basic level through to masters degree. It is intended to make this modular as this makes the course transferable, enabling it to be tailored to individual requirements.

Recommendations

1. Communication strategy

There is an urgent need for a clear communication strategy for AHP at each different level – locally, regionally and nationally. As AHP are from diverse structures and backgrounds, communication is not a simple task. The communication strategy must therefore be flexible and multifaceted. Nationally, the use of each professional body including key professional journals is needed to ensure mass communication is achieved. This is a top down approach to communication. Additionally, the national forums of the multi and uni-professional special interest groups which exist within the AHP groupings must be targeted. Special interest groups must be encouraged to network across professional boundaries to increase communication. National conferences run in conjunction with the critical care programme will additionally continue to facilitate communication.

Regionally, there are many different forums in which to instigate communication channels and networks. Primarily, AHP representation is essential in each of the critical care networks to enable full AHP participation and contribution. There needs to be a robust strategy in place regionally, via the regional manager's groups and the regional special interest groups to ensure that the information is disseminated down to a local level. Regional AHP networks (where in place) will further enhance communication.

Within each local trust there needs to be AHP representative on the Critical Care Delivery Group. These representatives need to be empowered by and act as a communication channel for all other AHP groups within the trust. There needs to be a clear communication strategy within each trust to ensure active participation in the work of the Critical Care Delivery Group. Finally, a bottom-up clinical network cascading information to and from the grass routes among AHP must be encouraged. This must utilise IT facilities such as e-mail and relevant web pages.

2. Representation

National representation of AHP is through the AHP Advisory Group. The nursing representative of the NHS Modernisation Agency Critical Care Programme sits on the Advisory Group. The chairperson attends the Critical Care Programme's Steering Group to ensure that AHP are clearly represented. The chairperson also links to the Head of Policy for AHP at the Department of Health.

Regional representation is coming to fruition. Each Regional Critical Care Reference Group is gaining an AHP representative. Additionally, the Critical Care Programme is actively encouraging each regional network to have clear AHP representation. Finally, at the local level, each Critical Care Delivery Group must have AHP representation. To make this effective, it is very clear that AHP on any group must represent all AHP not just their own profession. By being a member of the group the AHP has a responsibility to ensure that they network and communicate clearly with different professions at all levels.

The National AHP Advisory Group will help ensure that AHP representation is gained on any policy strategy groups set up nationally. It is only through membership of such groups that expert views, advice and facilitation can be achieved.

3. Workforce Development

This paper re-enforces the unique value of each profession in conjunction with the needs of the critical care client group. It also demonstrates that a collaborative approach must be extended to workforce development. The AHP Advisory Group views the role of this paper as a resource for workforce confederations, demonstrating how important each profession is within the critical care field. By highlighting the specific issues facing each profession, it will assist in informing the debate.
The AHP Advisory Group is eager to work with workforce confederations, to inform both the national and

The AHP Advisory Group is eager to work with workforce confederations, to inform both the national and local agendas. This incorporates both under and postgraduate training. The Advisory Group wishes to collaborate with issues around multi–professional training and development, whilst acknowledging the vital contribution of specific skills gained with uni-professional training. Shared training of crucial critical care skills at under and postgraduate levels is advocated. The impact, role and training of AHP consultants will also be crucial to the modernisation of critical care. The group acknowledges the need for streamlining and directing AHP about the key strengths and challenges facing each profession. This will help inform the current acute crisis in recruitment and retention amongst many of the key AHP groups.

The Advisory Group strongly recomends that workforce confederations support access for equal allocation to AHP to funds for study leave and time off for research (in line with both medical and nursing colleagues). Further work needs to be undertaken to identify clear educational needs, competencies and practice targets for AHP working in the critical care speciality.

4. Role Expansion and Reallocation of Tasks within Professions and Teams

The Advisory Group supports the principal of role expansion and reallocation of tasks within professions and teams (blurring of professional boundaries). There are concerns relating to the current acute retention problems within each profession. There needs to be clarity as to which skills can be shared appropriately across boundaries. Communication needs to be clear throughout each profession on this agenda. The communication strategy, representation and contribution across all health economies will hopefully naturally increase role expansion and reallocation of tasks within professions and teams. The clarity this paper brings will provide a focus on what each profession perceives they have to offer the agenda and are currently providing. Where cross-boundary working takes place, there needs to be sufficient care given to the management of risk (training in appropriate skills and knowledge, clear lines of supervision etc), clinical governance, fitness for purpose and to the monitoring of standards of care to ensure quality of care is not compromised. Attention to skill mix is also imperative.

To promote good team working, and facilitate the process of reallocation of tasks (blur boundaries and promote role expansion), it is advised that the induction of new staff should incorporate spending time with other health professions (starting at under graduate level). This process will be enhanced by development of protocols and guidelines. Dispersion of best and improving practice is key to role expansion and reallocation of tasks. The AHP advisory group is keen to work with workforce confederations to further patient focused team development to enhance patient centred needs driven care.

Conclusion

In summary, the following points are essential for the future involvement of AHP in the critical care field thus optimising patient care.

- Understanding of the unique contribution of each professional group
- The importance of collaboration and partnership working
- Development of effective communication strategies across local, regional and national networks
- Ensuring representation and active participation within critical care groups at national, regional and local levels
- Proactive workforce development of AHP within the critical care field
- Multi-professional role expansion and reallocation of tasks within professions and teams
- Strong links and collaborative working with Workforce Confederations

AHP are key to the modernisation process because of the unique contribution to many aspects of the patient's journey. Through the active involvement of AHP, optimal patient centred care will be achieved. Networks and collaboration of all professionals groups will facilitate the modernisation of Critical Care services.

Further Related Reading

Comprehensive Critical Care. A Review of Adult Critical Care Services. Department of Health May 2000

Meeting the Challenge: A Strategy for the Allied Health Professions. Department of Health November 2000

Making the Change: A strategy for Professions in Healthcare Science. Department of Health February 2001

The Nursing Contribution to the Provision of Comprehensive Critical Care: A Strategic Programme of Action. Department of Health January 2002

Guidance on Comprehensive Critical Care for Adults in the Independent Sector for Acute Hospitals. Independent Healthcare Association February 2002

Weaning and Long Term Ventilation, April 2002

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