



The Royal Australasian  
College of Physicians

# Paediatric Rehabilitation Medicine

## Advanced Training Curriculum

*Australasian Faculty of Rehabilitation Medicine*





The Royal Australasian  
College of Physicians

# Physician Readiness for Expert Practice (PREP) Training Program

**Paediatric Rehabilitation Medicine Advanced Training Curriculum**

TO BE USED IN CONJUNCTION WITH:

**Basic Training Curriculum – Paediatrics & Child Health**  
**Professional Qualities Curriculum**



# ACKNOWLEDGEMENTS

Fellows, trainees and RACP staff have contributed to the development of this curriculum document.

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The following Fellows and trainees, in particular, deserve specific mention for their contribution:

- Dr Jennifer Ault, FRACP FAFRM
- A/Prof Peter Flett, FRACP FAFRM
- Dr Remo (Ray) Russo, FRACP FAFRM
- Dr Mary-Clare Waugh FRACP FAFRM

Development of the Paediatric Rehabilitation Medicine Advanced Training Curriculum content was overseen by the AFRM Education Committee.

The process was managed by the Curriculum Development Unit within the College's Education Deanery, who designed the document, drafted content material, organised and facilitated writing workshops, developed resource materials, and formatted the final document.

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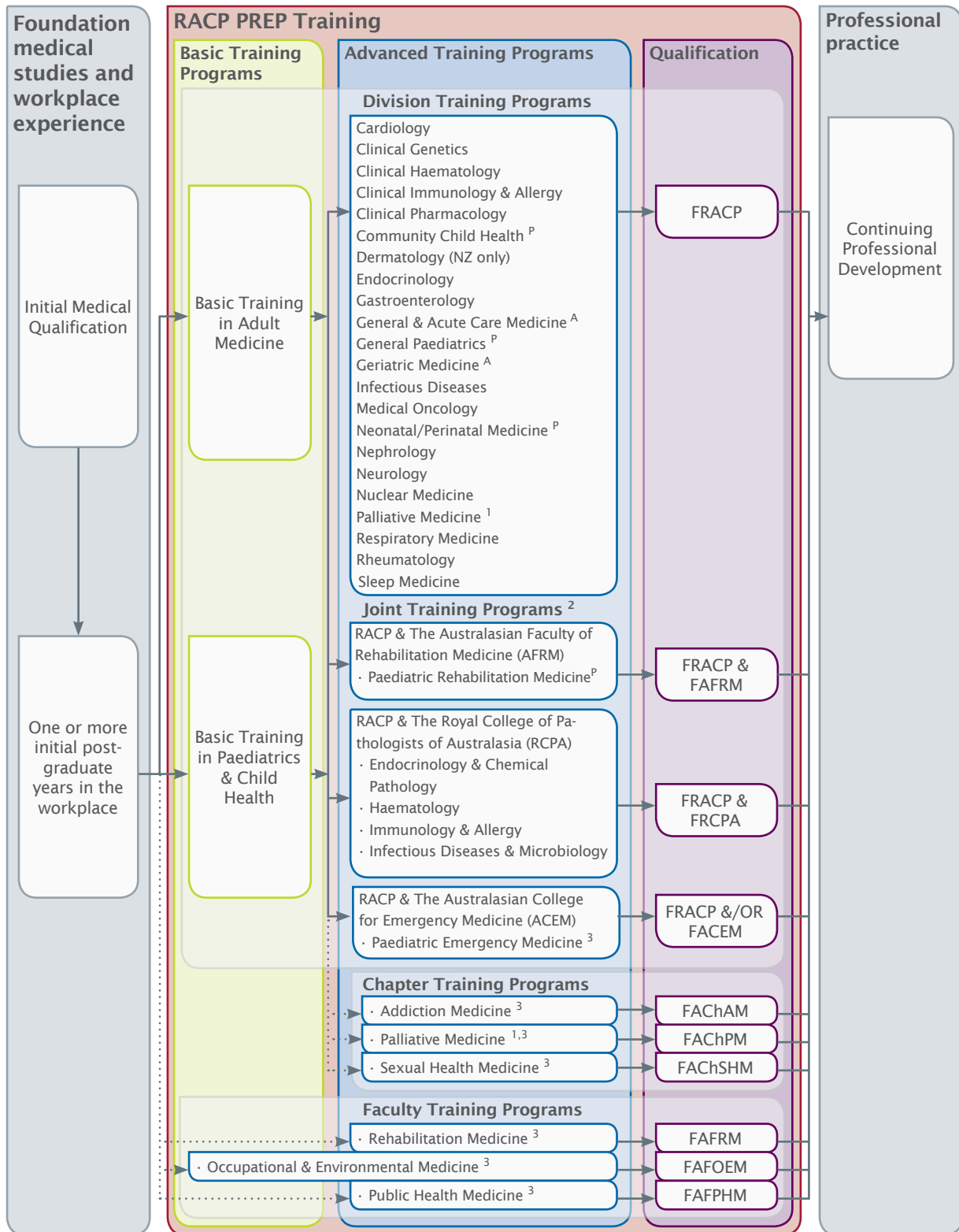
1st edition 2010 (revised 2013).

Please note: No Domains, Themes or Learning Objectives have been updated for this edition; design changes ONLY.

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## RACP FELLOWSHIP TRAINING PATHWAYS AND THE CONTINUUM OF LEARNING



<sup>P</sup> Trainees must complete Basic Training in Paediatrics & Child Health to enter this program.

<sup>A</sup> Trainees must complete Basic Training in Adult Medicine to enter this program.

<sup>1</sup> Trainees who have entered Advanced Training in Palliative Medicine via a RACP Basic Training Program will be awarded FRACP upon completion and may subsequently be awarded FACHPM. Trainees who have NOT entered Advanced Training in Palliative Medicine via a RACP Basic Training Program will only be awarded FACHPM upon completion.

<sup>2</sup> The Child & Adolescent Psychiatry Joint Training Program with the Royal Australian and New Zealand College of Psychiatrists (RANZCP) is currently under review by the RACP and RANZCP and closed to new entrants at present.

<sup>3</sup> Alternative entry requirements exist for these training programs; please see the corresponding PREP Program Requirements Handbook for further information.

NB1: This diagram only depicts training programs that lead to Fellowship. Please see the RACP website for additional RACP training programs.

NB2: For further information on any of the above listed training programs, please see the corresponding PREP Program Requirements Handbook.

## OVERVIEW OF THE SPECIALTY

Paediatric rehabilitation physicians diagnose and assess a young person's function associated with injury, illness or chronic conditions, to maximise their independence and improve and maintain quality of life. They provide specialist knowledge and expertise in the prevention, assessment, management and medical supervision of children or adolescents with a disability.

Paediatric rehabilitation physicians evaluate medical, social, emotional/behavioural, educational and recreational aspects of function. They work with young people and their families using an evidence-based collaborative approach with other disciplines, having a unique overview of the skills and expertise of other health professionals, to develop a patient-centred, individualised treatment plan in a range of settings, including home, public and private hospitals, and community rehabilitation centres and clinics.

Paediatric rehabilitation physicians plan, organise, administer and review appropriate and comprehensive rehabilitation management plans, utilising and coordinating the skills of interdisciplinary rehabilitation teams and communicating effectively with patients, their families, rehabilitation teams, medical colleagues and other relevant agencies. In addition, they plan, administer and lead rehabilitation services employing interdisciplinary teams, understand political, legal and ethical issues related to health service administration, and demonstrate effective basic skills in staff and team management. Paediatric rehabilitation physicians play a key role in the transition to adult services for paediatric rehabilitation patients. They help to develop and commence timely and appropriate transition services, working with other physicians, including family practitioners, rehabilitation medicine (adult) physicians and various specialists, in hospital and community service settings.

### **Areas of clinical practice include rehabilitation for:**

- neurological disorders, including muscle disorders, stroke, cerebral palsy, acquired spinal disorders/injury, acquired brain injury, including traumatic and nontraumatic
- developmental disabilities with physical impairment, including cerebral palsy and spina bifida
- musculoskeletal and orthopaedic conditions, including arthrogyrosis, juvenile rheumatoid arthritis, juvenile osteoporosis, osteogenesis imperfecta, hypermobility disorders, and sporting injuries
- persistent pain
- congenital and acquired limb deficiencies
- complex low incidence conditions, such as genetic short stature disorders, that would benefit from rehabilitation.

Note:

Also refer to the position statement *Paediatric Rehabilitation Medicine: Training and accreditation to become a Consultant Physician in Paediatric Rehabilitation Medicine (Nov 2007)* available under AFRM Publications on the AFRM website. [www.afrm.racp.edu.au](http://www.afrm.racp.edu.au)

## CURRICULUM OVERVIEW

### Paediatric Rehabilitation Medicine – Advanced Training Curriculum

This curriculum outlines the broad concepts, related learning objectives and the associated theoretical knowledge, clinical skills, attitudes and behaviours required and commonly utilised by paediatric rehabilitation physicians within Australia and New Zealand.

The purpose of Advanced Training is for trainees to build on the cognitive and practical skills acquired during Basic Training. At the completion of the Paediatric Rehabilitation Medicine Advanced Training Program, trainees should be competent to provide at consultant level, unsupervised comprehensive medical care in paediatric rehabilitation medicine.

Attaining competency in all aspects of this curriculum is expected to take three years of training. It is expected that all teaching, learning and assessment associated with the Paediatric Rehabilitation Medicine Advanced Training Curriculum will be undertaken within the context of the physician's everyday clinical practice and will accommodate discipline-specific contexts and practices as required. As such, it will need to be implemented within the reality of current workplace and workforce issues and the needs of health service provision.

There may be learning objectives that overlap with or could easily relate to other domains; however, to avoid repetition, these have been assigned to only one area. In practice, however, it is anticipated that within the teaching/learning environment, the progression of each objective would be explored.

Note: The curricula should always be read in conjunction with the relevant College Training Handbook available on the College website.

### Professional Qualities Curriculum

The Professional Qualities Curriculum (PQC) which can be found on the College website outlines the range of concepts and specific learning objectives required by, and utilised by, all physicians, regardless of their specialty or area of expertise. It spans both the Basic and Advanced Training programs and is also utilised as a key component of the Continuing Professional Development (CPD) program.

Together with the various Basic and Advanced Training Curricula, the PQC integrates and fully encompasses the diagnostic, clinical, and educative-based aspects of the physician's/paediatrician's daily practice.

Each of the concepts and objectives within the PQC will be taught, learnt and assessed within the context of everyday clinical practice. It is important, therefore, that they be aligned with, and fully integrated into, the learning objectives within this curriculum.

The domains and themes from the Professional Qualities Curriculum are reproduced here for reference:

<b>Domain 1</b> Theme 1.1 Theme 1.2 Theme 1.3 Theme 1.4	<b>Communication</b> Physician-Patient Communication Communicating with a Patient's Family and/or Carers Communicating with Colleagues and Broader Health Care Team Communicating with the Broader Community
<b>Domain 2</b> Theme 2.1 Theme 2.2 Theme 2.3	<b>Quality and Safety</b> Using Evidence and Information Safe Practice Identifying, Preventing and Managing Potential Harm



<b>Domain 3</b> Theme 3.1 Theme 3.2 Theme 3.3	<b>Teaching and Learning (Scholar)</b> Ongoing Learning Research Educator
<b>Domain 4</b> Theme 4.1	<b>Cultural Competency</b> Ongoing Learning
<b>Domain 5</b> Theme 5.1 Theme 5.2 Theme 5.3	<b>Ethics</b> Professional Ethics Personal Ethics Ethics and Health Law
<b>Domain 6</b> Theme 6.1	<b>Clinical Decision Making</b> Clinical Decision Making
<b>Domain 7</b> Theme 7.1 Theme 7.2	<b>Leadership and Management</b> Self-Management Leadership and Managing Others
<b>Domain 8</b> Theme 8.1 Theme 8.2 Theme 8.3	<b>Health Advocacy</b> Advocacy for the Patient Individual Advocacy Group Advocacy
<b>Domain 9</b> Theme 9.1 Theme 9.2 Theme 9.3 Theme 9.4 Theme 9.5	<b>The Broader Context of Health</b> Burden of Disease Determination of Health Prevention and Control Priority Population Groups Economics of Health

## EXPECTED OUTCOMES AT THE COMPLETION OF TRAINING

Graduates from this training program will be equipped to function effectively within the current and emerging professional, medical and societal contexts. At the completion of the Paediatric Rehabilitation Medicine Advanced Training Program, as defined by this curriculum, it is expected that a new Fellow will have developed the clinical skills and have acquired the theoretical knowledge for competent consultant paediatric rehabilitation medicine practice. It is expected that a new Fellow will have acquired and will continue to develop competencies that ensure the highest standard of patient care.

These competencies can be described in terms of identifiable learning objectives employing specific knowledge and skills, as set out in the following pages.

Professional competence also demands that paediatric rehabilitation physicians hold attitudes congruent with their responsibilities towards patients, their stage of growth and development, their families, other health professionals and the community, including preschools and schools.

These attitudes are in the following areas:

## Patient Focus

A rehabilitation physician:

- applies a positive and constructive attitude to the development of strategies to enable the person with disability and activity limitation or participation restriction to realise their full potential
- recognises the perspective and beliefs of the patient, and endeavours to incorporate the patient's needs and expectations into the plan of care
- is aware of and sensitive to issues of ethnicity, culture, gender and sexuality
- recognises the importance of the family in supporting the patient, as well as the potential difficulties the family may experience in the care of a family member with a disability.

## Professional Role

A rehabilitation physician:

- behaves with empathy, courtesy, responsibility and accountability towards patients and their families, and towards other health professionals
- understands the extent of their competence and how their role extends the traditional medical role
- recognises and respects the contributions and roles of other medical practitioners in the process of care
- is prepared and willing to actively promote rehabilitation medicine to the medical profession.

## Continuing Professional Development

A rehabilitation physician:

- views competence as a continuing process of education and learning by which he/she ensures that clinical practice is of the highest standard
- is willing to openly and regularly review personal competence, and to improve clinical skills as necessary.

## Interdisciplinary Management

While a rehabilitation physician accepts full and ultimate responsibility for the rehabilitation care of the patient, he/she:

- recognises the appropriateness of interdisciplinary team management, especially in the care of persons with permanent and complex disability
- understands the specific skills of each team member, and develops a close professional relationship with these allied disciplines
- appreciates the synergistic effect of cohesive team management, and strives to support the team in achieving holistic and expert care.

## Patient Advocacy

A rehabilitation physician is:

- prepared at all times and to the best of his/her ability to represent and support persons with disability in the achievement and defence of their rights to receive optimal medical and rehabilitation care, and to pursue their chosen lifestyle with independence and dignity
- aware of the full extent of potential disadvantage arising from disability, and is willing to assist persons with disability in achieving their full rights in society, especially with regard to medical care, accommodation, community support, community access, safety, transport, and appropriate political and legal representation.

## CURRICULUM THEMES AND LEARNING OBJECTIVES

Each of the curriculum documents has been developed using a common format, thereby ensuring a degree of consistency and approach across the spectrum of training.

### Domains

The domains are the broad fields which group common or related areas of learning.

### Themes

The themes identify and link more specific aspects of learning into logical or related groups.

### Learning Objectives

The learning objectives outline the specific requirements of learning. They provide a focus for identifying and detailing the required knowledge, skills and attitudes. They also provide a context for specifying assessment standards and criteria as well as providing a context for identifying a range of teaching and learning strategies.

## LEARNING OBJECTIVES TABLES

<b>DOMAIN 1</b>	<b>FOUNDATIONS OF PAEDIATRIC REHABILITATION MEDICINE</b>
<b>Theme 1.1</b>	Disability and Activity Limitation
<b>Learning Objectives</b>	
<b>1.1.1</b>	Complete a comprehensive assessment that identifies relevant impairments and disabilities, and evaluate the potential for rehabilitation
<b>1.1.2</b>	Plan, implement and review a realistic and appropriate rehabilitation program that specifies appropriate modalities of assessment and treatment
<b>1.1.3</b>	Use relevant medical investigations and therapies
<b>1.1.4</b>	Explain the impact of growth and development of the child or adolescent in the context of their specific disability
<b>1.1.5</b>	Communicate with the referring practitioner, therapists and other relevant agencies
<b>DOMAIN 2</b>	<b>POPULATION/PUBLIC HEALTH</b>
<b>Theme 2.1</b>	Prevention
<b>Learning Objectives</b>	
<b>2.1.1</b>	Describe the potentially disabling consequences of illness and injury

<b>2.1.2</b>	Promote preventative strategies with regard to illness and injuries that may cause significant disability
<b>2.1.3</b>	Promote early identification and treatment of disability, including secondary physical and psychological disabilities
<b>2.1.4</b>	Apply the principles of primary, secondary and tertiary prevention
<b>2.1.5</b>	Differentiate between normal, delayed and abnormal child development
<b>DOMAIN 3</b>	<b>CLINICAL SKILLS</b>
<b>Theme 3.1</b>	<b>Fundamentals of Paediatric Rehabilitation Clinical Skills</b>
<b>Learning Objectives</b>	
<b>3.1.1</b>	Apply the principles of nutrition
<b>3.1.2</b>	Apply the principles of skin care and wound management
<b>3.1.3</b>	Apply the principles of bladder and bowel care
<b>3.1.4</b>	Apply the principles of equipment and assistive technology
<b>3.1.5</b>	Apply the principles of orthotics, prosthetics, biomechanics and gait
<b>3.1.6</b>	Describe the role of allied health and education staff and implement the principles involved
<b>3.1.7</b>	Apply the principles of discharge planning and transition to home
<b>3.1.8</b>	Describe the impact of family functioning on rehabilitation process
<b>3.1.9</b>	Apply the principles of transition to adult services
<b>Theme 3.2</b>	<b>Cerebral Palsy</b>
<b>Learning Objectives</b>	
<b>3.2.1</b>	Assess and manage patients with cerebral palsy
<b>Theme 3.3</b>	<b>Acquired Brain Injury</b>
<b>Learning Objectives</b>	
<b>3.3.1</b>	Assess and manage patients with acquired brain injury
<b>Theme 3.4</b>	<b>Limb Deficiencies in Children</b>
<b>Learning Objective</b>	
<b>3.4.1</b>	Assess and manage patients with limb deficiencies

<b>Theme 3.5</b>	Neural Tube Defects and Related Conditions
<b>Learning Objective</b>	
<b>3.5.1</b>	Assess and manage patients with neural tube defects
<b>Theme 3.6</b>	Spinal Cord Injury and Disease
<b>Learning Objective</b>	
<b>3.6.1</b>	Assess and manage patients with spinal cord injury and disease
<b>Theme 3.7</b>	Neuromuscular Conditions
<b>Learning Objective</b>	
<b>3.7.1</b>	Assess and manage patients with neuromuscular conditions
<b>Theme 3.8</b>	Musculoskeletal Conditions
<b>Learning Objective</b>	
<b>3.8.1</b>	Assess and manage patients with musculoskeletal conditions
<b>Theme 3.9</b>	Persistent Pain
<b>Learning Objective</b>	
<b>3.9.1</b>	Assess and manage the identified rehabilitation needs of patients with persistent pain
<b>Theme 3.10</b>	Complex Low Incidence Conditions
<b>Learning Objective</b>	
<b>3.10.1</b>	Assess and manage the identified rehabilitation needs of patients with developmental/genetic/chromosomal syndromes with physical impairments

<b>DOMAIN 1</b>	<b>FOUNDATIONS OF PAEDIATRIC REHABILITATION MEDICINE</b>	
<b>Theme 1.1</b>	Disability and Activity Limitation	
<b>Learning Objective 1.1.1</b>	Complete a comprehensive assessment that identifies relevant impairments and disabilities, and evaluate the potential for rehabilitation	
<b>Knowledge</b>	<b>Skills</b>	
<ul style="list-style-type: none"> <li>• discuss the concepts of impairment, disability and activity limitation or participation restriction in reference to the International Classification of Functioning and Disability (ICF)</li> <li>• describe the influence of medical, physical, psychological, social, educational, ethnic, cultural, gender and sexuality issues on the determination of disability, and their possible effects on the outcome of rehabilitation</li> <li>• describe the impact of illness and/or injury at different stages of development, physical and cognitive</li> <li>• outline the evolution, natural course and variations in chronic diseases of childhood.</li> </ul>	<ul style="list-style-type: none"> <li>• take patient history using appropriate interview techniques</li> <li>• perform a comprehensive clinical examination, including physical, functional and cognitive assessments</li> <li>• use and interpret relevant diagnostic investigations, including radiological and electrodiagnostic tests</li> <li>• synthesise findings of history, clinical examination and investigations into a statement of the nature and extent of disability and activity limitation or participation restriction experienced by the patient</li> <li>• evaluate potential for rehabilitation.</li> </ul>	

DOMAIN 1	FOUNDATIONS OF PAEDIATRIC REHABILITATION MEDICINE	
Theme 1.1	Disability and Activity Limitation	
Learning Objective 1.1.2	Plan, implement and review a realistic and appropriate rehabilitation program that specifies appropriate modalities of assessment and treatment	
Knowledge	Skills	
<ul style="list-style-type: none"> <li>• outline the principles of organisation and management of interdisciplinary rehabilitation, including the use of care plans and critical pathways</li> <li>• describe the roles and skills of rehabilitation team members, including: <ul style="list-style-type: none"> <li>• junior medical staff</li> <li>• rehabilitation nurse</li> <li>• occupational therapist</li> <li>• physiotherapist</li> <li>• speech pathologist</li> <li>• social worker</li> <li>• clinical psychologist</li> <li>• neuropsychologist</li> <li>• vocational counsellor</li> <li>• prosthetist/orthotist</li> <li>• child life therapists/play therapists</li> <li>• music therapists</li> <li>• other health professionals whose skills may assist rehabilitation</li> </ul> </li> <li>• describe the role of pharmacological treatments, including potential side-effects, in the management of impairment and disability</li> <li>• describe the role of surgical interventions in the management of disability</li> <li>• describe the role of physical therapeutic modalities in the management of impairment and disability</li> <li>• describe the important role of the family and their constructive involvement and support in planning and delivering the rehabilitation plan</li> <li>• explain ethical and legal issues relevant to rehabilitation care planning and delivery</li> <li>• outline the principles of goal setting</li> <li>• outline team management strategies in the context of ongoing care in different settings such as: <ul style="list-style-type: none"> <li>• inpatient</li> <li>• outpatient</li> <li>• community.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• formulate rehabilitation management plans specifying problems, goals and the activities of medical and allied disciplines relevant to the patient's disability, developmental level, potential for rehabilitation, and available resources for rehabilitation therapy</li> <li>• supervise all aspects of rehabilitation management, including medication and progressive functional restoration</li> <li>• communicate with patients and families regarding the rehabilitation plan</li> <li>• review patient's progress in rehabilitation, revising problems and goals as necessary</li> <li>• synthesise findings of investigations to modify management plans</li> <li>• communicate and coordinate activities of the rehabilitation team through regular consultation</li> <li>• interpret team dynamics</li> <li>• write adequate, timely and legible medical records.</li> </ul>	

<b>DOMAIN 1</b>	<b>FOUNDATIONS OF PAEDIATRIC REHABILITATION MEDICINE</b>	
<b>Theme 1.1</b>	Disability and activity limitation	
<b>Learning Objective 1.1.3</b>	Use relevant medical investigations and therapies	
<b>Knowledge</b>	<b>Skills</b>	
<ul style="list-style-type: none"> <li>describe the potential role and benefit of specific medical and rehabilitation therapies in the assessment and management of disability and activity limitation or participation restriction</li> <li>differentiate current tools and systems for the measurement of impairment, disability and activity limitation or participation restriction</li> <li>describe the effective use of functional outcome measures in rehabilitation planning and management e.g. WeeFIM assessments</li> <li>compare alternative therapies and rationalise their use or non use.</li> </ul>	<ul style="list-style-type: none"> <li>use and interpret diagnostic and assessment investigations, including: <ul style="list-style-type: none"> <li>radiological tests</li> <li>electrodiagnostic tests</li> <li>neuropsychological assessments</li> <li>gait analysis</li> </ul> </li> <li>use the WeeFIM tool as required</li> <li>choose appropriate prosthetics, orthotics and adaptive equipment in the management of impairment and disability, as required.</li> </ul>	

<b>DOMAIN 1</b>	<b>FOUNDATIONS OF PAEDIATRIC REHABILITATION MEDICINE</b>	
<b>Theme 1.1</b>	Disability and Activity Limitation	
<b>Learning Objective 1.1.4</b>	Explain the impact of growth and development of the child or adolescent in the context of their specific disability	
<b>Knowledge</b>	<b>Skills</b>	
<ul style="list-style-type: none"> <li>describe the normal stages and ranges of: <ul style="list-style-type: none"> <li>physical development</li> <li>cognitive development</li> <li>speech development</li> <li>social development</li> </ul> </li> <li>describe the impact of disability on normal developmental processes</li> <li>describe the impact of growth spurts on developmental processes and physical disability.</li> </ul>	<ul style="list-style-type: none"> <li>use and interpret developmental assessments</li> <li>interpret the impact of the patient's current level of development on the rehabilitation process.</li> </ul>	



<b>DOMAIN 1</b>	<b>FOUNDATIONS OF PAEDIATRIC REHABILITATION MEDICINE</b>	
<b>Theme 1.1</b>	Disability and Activity Limitation	
<b>Learning Objective 1.1.5</b>	Communicate with the referring practitioner, therapists and other relevant agencies	
<b>Knowledge</b>	<b>Skills</b>	
<ul style="list-style-type: none"> <li>identify the roles of government agencies, private organisations and volunteer groups in the community care and advocacy of persons with disability and activity limitation or participation restriction</li> <li>compare hospital rehabilitation unit and community management systems.</li> </ul>	<ul style="list-style-type: none"> <li>interpret administration and referral forms</li> <li>explain diagnoses and rehabilitation management plans to referring medical practitioners and therapists</li> <li>identify and manage conflict arising during rehabilitation</li> <li>write medical or medico-legal reports outlining: <ul style="list-style-type: none"> <li>results of evaluation</li> <li>recommendations for rehabilitation management</li> <li>predicted outcomes for growth and development</li> </ul> </li> <li>collate presentations as required using appropriate written or spoken language for the target audience.</li> </ul>	

<b>DOMAIN 2</b>	<b>POPULATION/PUBLIC HEALTH</b>	
<b>Theme 2.1</b>	Prevention	
<b>Learning Objective 2.1.1</b>	Describe the potentially disabling consequences of illness and injury	
<b>Knowledge</b>	<b>Skills</b>	
<ul style="list-style-type: none"> <li>describe epidemiology and natural history of diseases and injuries that potentially cause significant and permanent impairment and dysfunction</li> <li>describe the potential impact of disablement on the patient's family, including disturbance to family function, need for support of the family during rehabilitation and influence of family dynamics on rehabilitation outcomes</li> <li>summarise strategies for identifying and managing psychological factors affecting rehabilitation, including adjustment disorders, depression, anxiety and cognitive/behavioural disorders.</li> </ul>	<ul style="list-style-type: none"> <li>recognise the impact of disablement on the patient's family</li> <li>recognise the psychological adjustment of the child and family to disability</li> <li>counsel and educate patients, families, schools and other relevant stakeholders with regard to the effects and consequences of impairment</li> <li>identify and manage individual patient risk factors associated with potential injury and disability.</li> </ul>	

<b>DOMAIN 2</b>	<b>POPULATION/PUBLIC HEALTH</b>	
<b>Theme 2.1</b>	Prevention	
<b>Learning Objective 2.1.2</b>	Promote preventative strategies with regard to illness and injuries that may cause significant disability	
<b>Knowledge</b>	<b>Skills</b>	
<ul style="list-style-type: none"> <li>differentiate the roles of government agencies, private organisations and volunteer groups in the community care and advocacy of persons with disability and activity limitation or participation restriction</li> <li>describe environmental factors that contribute to illness and injury, including psychological factors, ethnic and cultural issues</li> <li>describe the role of bone health in managing diseases and injuries</li> <li>describe preventative strategies for diseases and injuries that may cause significant disability.</li> </ul>	<ul style="list-style-type: none"> <li>identify and modify environmental factors that may directly contribute to the development of illness and injury</li> <li>counsel and educate the medical and general community, including schools, regarding illness and injury prevention, and the importance of early rehabilitation</li> <li>identify and manage individual patient risk factors associated with potentially disabling illness and injury.</li> </ul>	

<b>DOMAIN 2</b>	<b>POPULATION/PUBLIC HEALTH</b>	
<b>Theme 2.1</b>	Prevention	
<b>Learning Objective 2.1.3</b>	Promote early identification and treatment of disability, including secondary physical and psychological disabilities	
<b>Knowledge</b>	<b>Skills</b>	
<ul style="list-style-type: none"> <li>recognise patient factors contributing to illness and injury, including age, gender, fitness and lifestyle</li> <li>compare current major preventive health programs at national and state level, with relevance to paediatric rehabilitation medicine</li> <li>recognise bone health pathophysiology and its impact on the treatment of disability.</li> </ul>	<ul style="list-style-type: none"> <li>promote early and effective rehabilitation/ treatment to limit the disabling consequences of illness and injury</li> <li>access and use available, relevant guidelines such as the National Hip Surveillance Guidelines for cerebral palsy.</li> </ul>	

<b>DOMAIN 2</b>	<b>POPULATION/PUBLIC HEALTH</b>	
<b>Theme 2.1</b>	Prevention	
<b>Learning Objective 2.1.4</b>	Apply the principles of primary, secondary and tertiary prevention	
<b>Knowledge</b>	<b>Skills</b>	
<ul style="list-style-type: none"> <li>outline the concepts of primary, secondary and tertiary prevention in the context of rehabilitation medicine.</li> </ul>	<ul style="list-style-type: none"> <li>manage pathomechanics of injury/disorder and resulting dysfunction.</li> </ul>	

<b>DOMAIN 2</b>	<b>POPULATION/PUBLIC HEALTH</b>	
<b>Theme 2.1</b>	Prevention	
<b>Learning Objective 2.1.5</b>	Differentiate between normal, delayed and abnormal child development	
<b>Knowledge</b>	<b>Skills</b>	
<ul style="list-style-type: none"> <li>define developmental and intellectual disability</li> <li>describe levels of intellectual disability</li> <li>describe epidemiology of intellectual disability and common syndromes</li> <li>differentiate between genetic and chromosomal disorders as they pertain to child development</li> <li>describe the impact of different levels of intellectual disability and the impact this has in the classroom and in family and community situations</li> <li>describe commonly associated disorders related to neurological immaturity or patchy development.</li> </ul>	<ul style="list-style-type: none"> <li>differentiate between normal, delayed and abnormal child development in practice</li> <li>communicate effectively with patients and carers</li> <li>describe the impact of intellectual, cognitive or learning disabilities on learning, including in the school setting.</li> </ul>	

<b>DOMAIN 3</b>	<b>CLINICAL SKILLS</b>	
<b>Theme 3.1</b>	Fundamentals of Paediatric Rehabilitation Clinical Skills	
<b>Learning Objective 3.1.1</b>	Apply the principles of nutrition	
<b>Knowledge</b>	<b>Skills</b>	
<ul style="list-style-type: none"> <li>outline the principles of child nutrition</li> <li>describe the role of the paediatric rehabilitation medicine physician in relation to patient nutrition</li> <li>describe methods of assessing nutritional status of a child with disability</li> </ul>	<ul style="list-style-type: none"> <li>recognise and manage nutritional impairments</li> <li>analyse dietary and nutritional information</li> <li>formulate treatment plans in consultation with patients, families, interdisciplinary team and other stakeholders</li> </ul>	

<b>DOMAIN 3</b>	<b>CLINICAL SKILLS</b>	
<b>Theme 3.1</b>	Fundamentals of Paediatric Rehabilitation Clinical Skills	
<b>Learning Objective 3.1.1</b>	Apply the principles of nutrition	
<ul style="list-style-type: none"> <li>compare dietary and nutritional information based on assessment of: <ul style="list-style-type: none"> <li>usual dietary patterns</li> <li>body weight and fat</li> <li>lipid profile</li> <li>medication</li> <li>associated medical disorders.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>communicate with team members, patients, families and other medical practitioners and agencies involved in the patient's care</li> <li>counsel and educate patients, families and other relevant stakeholders with regard to nutrition.</li> </ul>	

<b>DOMAIN 3</b>	<b>CLINICAL SKILLS</b>	
<b>Theme 3.1</b>	Fundamentals of Paediatric Rehabilitation Clinical Skills	
<b>Learning Objective 3.1.2</b>	Apply the principles of skin care and wound management	
<b>Knowledge</b>	<b>Skills</b>	
<ul style="list-style-type: none"> <li>describe the role of the paediatric rehabilitation medicine physician in skin care and wound management</li> <li>describe factors that can lead to skin damage and wound breakdown</li> <li>describe pressure area care and pressure sore management</li> <li>explain strategies for preventing skin breakdown</li> <li>identify treatments for wound breakdown</li> <li>summarise basic guidelines for prescribing pressure relieving equipment.</li> </ul>	<ul style="list-style-type: none"> <li>perform comprehensive patient assessments that identify the condition</li> <li>allocate a grade to pressure area problems</li> <li>use tools for risk assessment for pressure care</li> <li>formulate treatment plans in consultation with patients, families, interdisciplinary team (specialist nurses in treatment of wounds) and other stakeholders</li> <li>use skin surveillance and prevention strategies</li> <li>review and coordinate patient management, involving patients and families</li> <li>discuss skin care treatment and wound management with team members, patients, families, schools and other medical practitioners and agencies involved in the patient's care</li> <li>counsel and educate patients, families, schools and other relevant stakeholders regarding skin care treatment and wound management.</li> </ul>	

DOMAIN 3		CLINICAL SKILLS	
Theme 3.1		Fundamentals of Paediatric Rehabilitation Clinical Skills	
Learning Objective 3.1.3		Apply the principles of bladder and bowel care	
Knowledge		Skills	
<ul style="list-style-type: none"> <li>describe the role of the paediatric rehabilitation medicine physician in bladder and bowel care</li> <li>describe physiology and pathophysiology of bladder and bowel function and dysfunction in conditions such as acquired spinal cord injury (SCI) and spina bifida, including: <ul style="list-style-type: none"> <li>incidence</li> <li>types of impairment</li> <li>fluid management</li> <li>drug management</li> <li>surgical management</li> <li>dietary management</li> <li>enema management</li> </ul> </li> <li>outline the principles and techniques of clean intermittent catheterisation</li> <li>compare products commonly used to achieve bladder continence.</li> </ul>		<ul style="list-style-type: none"> <li>analyse bowel and bladder issues</li> <li>formulate treatment plans in consultation with patients, families, interdisciplinary team and other stakeholders</li> <li>adapt treatment plans to accommodate age, size, developmental level and function of the child</li> <li>select appropriate catheter size and bladder volumes for age</li> <li>review and coordinate patient management, involving patients and families</li> <li>discuss bowel and bladder care with team members, patients, families, schools and other medical practitioners and agencies involved in the patient's care</li> <li>counsel and educate patients, families, schools and other relevant stakeholders regarding bowel and bladder care</li> <li>recognise when and how to implement a teaching program for the child to learn the bladder and bowel techniques themselves.</li> </ul>	

DOMAIN 3		CLINICAL SKILLS	
Theme 3.1		Fundamentals of Paediatric Rehabilitation Clinical Skills	
Learning Objective 3.1.4		Apply the principles of equipment and assistive technology	
Knowledge		Skills	
<ul style="list-style-type: none"> <li>describe indications, constraints and training required for use of adaptive devices and mobility aids, including: <ul style="list-style-type: none"> <li>sticks</li> <li>crutches</li> <li>frames</li> <li>standing frames</li> <li>walkers</li> <li>wheelchairs</li> <li>motorised scooters</li> <li>modified motor vehicle controls</li> </ul> </li> </ul>		<ul style="list-style-type: none"> <li>prescribe the most suitable adaptive device or mobility aids for the patient's needs</li> <li>coordinate and review allocation of equipment and assistive technology, involving patients and families and incorporating the changing needs of a growing and developing child</li> <li>discuss the equipment and its use with team members, patients, families and other medical practitioners and agencies involved in the patient's care.</li> </ul>	

<b>DOMAIN 3</b>	<b>CLINICAL SKILLS</b>
<b>Theme 3.1</b>	Fundamentals of Paediatric Rehabilitation Clinical Skills
<b>Learning Objective 3.1.4</b>	Apply the principles of equipment and assistive technology
<ul style="list-style-type: none"> <li>describe indications, constraints and training required for use of adaptations and devices that improve function in the home such as: <ul style="list-style-type: none"> <li>hoists</li> <li>adaptive seating</li> <li>bedding systems.</li> </ul> </li> </ul>	

<b>DOMAIN 3</b>	<b>CLINICAL SKILLS</b>
<b>Theme 3.1</b>	Fundamentals of Paediatric Rehabilitation Clinical Skills
<b>Learning Objective 3.1.5</b>	Apply the principles of orthotics, prosthetics, biomechanics and gait
<b>Knowledge</b>	<b>Skills</b>
<ul style="list-style-type: none"> <li>describe the use of orthotics and adaptive equipment in the management of impairment and disability, including biomechanical principles, methods of fabrication, assessment and follow-up</li> <li>define principles of mobility and balance</li> <li>describe the phases of the gait cycle</li> <li>describe common gait abnormalities</li> <li>outline the principles of upper and lower limb orthotics, including: <ul style="list-style-type: none"> <li>resting splints</li> <li>short and long opponens splints</li> <li>flexor-hinge orthosis</li> <li>writing splints</li> <li>mobile arm supports</li> <li>gait orthoses, including ankle-foot orthoses (AFOs), reciprocating gait orthoses (RGOs), hip-knee-ankle-foot orthoses (HKAFOs) and knee-ankle-foot orthoses (KAFOs)</li> </ul> </li> <li>outline the principles of functional electrical stimulation, including: <ul style="list-style-type: none"> <li>phrenic nerve pacemaker</li> <li>sacral anterior root stimulator</li> <li>Cleveland upper limb neuroprosthesis</li> <li>functional electrical stimulation (FES)</li> <li>gait and exercise programs</li> </ul> </li> <li>describe Australasian standards for home modifications to accommodate disabilities</li> </ul>	<ul style="list-style-type: none"> <li>apply the phases of the gait cycle in decision making in practice</li> <li>prescribe appropriate electrical stimulation aids</li> <li>review and coordinate patient management plans, involving patients and families</li> <li>discuss the prescription/use of orthotics and prostheses with team members, patients, families and other medical practitioners and agencies involved in the patient's care</li> <li>utilise Australasian standards for home modifications to accommodate disabilities and access to a built environment.</li> </ul>

<b>DOMAIN 3</b>	<b>CLINICAL SKILLS</b>
<b>Theme 3.1</b>	Fundamentals of Paediatric Rehabilitation Clinical Skills
<b>Learning Objective 3.1.5</b>	Apply the principles of orthotics, prosthetics, biomechanics and gait
<ul style="list-style-type: none"> <li>describe Australasian standards for access to a built environment.</li> </ul>	

<b>DOMAIN 3</b>	<b>CLINICAL SKILLS</b>
<b>Theme 3.1</b>	Fundamentals of Paediatric Rehabilitation Clinical Skills
<b>Learning Objective 3.1.6</b>	Describe the role of allied health and education staff and implement the principles involved
<b>Knowledge</b>	<b>Skills</b>
<ul style="list-style-type: none"> <li>describe the role of the following disciplines in team based interdisciplinary patient management: <ul style="list-style-type: none"> <li>physiotherapy</li> <li>occupational therapy</li> <li>child life therapy</li> <li>music therapy</li> <li>speech therapy</li> <li>psychology (clinical, educational and neuropsychology)</li> <li>social work</li> <li>podiatry</li> <li>orthotics and prosthetics</li> <li>rehabilitation nursing in inpatient and outpatient settings</li> <li>alternative therapies, scientifically unproven and/or complementary</li> </ul> </li> <li>describe the role of teachers and other education staff in the ongoing management of children and adolescents.</li> </ul>	<ul style="list-style-type: none"> <li>communicate with allied health professionals and education staff through regular consultation and liaison</li> <li>coordinate rehabilitation team activities</li> <li>write adequate, timely and legible medical records</li> <li>design rehabilitation care plans that specify problems, goals and activities of medical and allied disciplines.</li> </ul>

DOMAIN 3	CLINICAL SKILLS	
Theme 3.1	Fundamentals of Paediatric Rehabilitation Clinical Skills	
Learning Objective 3.1.7	Apply the principles of discharge planning and transition to home	
Knowledge	Skills	
<ul style="list-style-type: none"> <li>• describe the role and function of paediatric assessment units and centres for children and adolescents with disabilities</li> <li>• interpret the principles of community care and re-integration, including:               <ul style="list-style-type: none"> <li>• role of the family</li> <li>• role of the school</li> <li>• safety and accessibility of home and school environments including provision of aids/modifications</li> <li>• safe functional mobility</li> <li>• community support services</li> <li>• types of community programs</li> <li>• role of the general practitioner</li> <li>• government benefits and schemes</li> <li>• applicable insurance schemes and benefits</li> <li>• applying to government agencies for appliances and equipment e.g. artificial limb schemes in different states and New Zealand.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• support and facilitate hospital discharge/interdisciplinary discharge planning</li> <li>• lead interdisciplinary team meetings for rehabilitation care and discharge planning</li> <li>• classify relevant schemes applicable for children and adolescents with disabilities.</li> </ul>	



DOMAIN 3		CLINICAL SKILLS	
Theme 3.1		Fundamentals of Paediatric Rehabilitation Clinical Skills	
Learning Objective 3.1.8		Describe the impact of family functioning on rehabilitation process	
Knowledge		Skills	
<ul style="list-style-type: none"> <li>describe the importance of the patient’s family in supporting the patient</li> <li>describe the difficulties families may experience in the care of a disabled child</li> <li>describe the influence of different family dynamics on rehabilitation outcomes</li> <li>describe psychological issues, including:               <ul style="list-style-type: none"> <li>psychological reactions to disablement</li> <li>theories of adjustment to disability.</li> </ul> </li> </ul>		<ul style="list-style-type: none"> <li>plan and implement rehabilitation programs that address the needs and expectation of the patient and family</li> <li>facilitate ongoing patient and family participation in the rehabilitation program</li> <li>counsel and educate patients and families regarding ongoing effects of impairment and disability</li> <li>support families with varying degrees of functionality through the changing developmental stages of the growing child or adolescent in the context of their specific disability to deliver desired outcomes.</li> </ul>	

DOMAIN 3		CLINICAL SKILLS	
Theme 3.1		Fundamentals of Paediatric Rehabilitation Clinical Skills	
Learning Objective 3.1.9		Apply the principles of transition to adult services	
Knowledge		Skills	
<ul style="list-style-type: none"> <li>outline principles of transitional health care</li> <li>explain the importance of timely, planned, coordinated transition from paediatric to adult care</li> <li>define management strategies, including psychological management, that promote independence</li> <li>outline principles of post-discharge and community care, including:               <ul style="list-style-type: none"> <li>patient support organisations</li> <li>community support services</li> <li>vocational rehabilitation</li> <li>leisure and sports activities.</li> </ul> </li> </ul>		<ul style="list-style-type: none"> <li>reinforce the importance of effective transition from paediatric to adult care</li> <li>recognise need for driving assessments, vehicle modifications and/or retraining to drive</li> <li>recommend appropriate home modifications and equipment</li> <li>promote independence in disabled adolescents recognising the changing role of the family.</li> </ul>	

DOMAIN 3	CLINICAL SKILLS
Theme 3.2	Cerebral Palsy
Learning Objective 3.2.1	Assess and manage patients with cerebral palsy
Knowledge	Skills
<ul style="list-style-type: none"> <li>describe aetiology, pathogenesis and pathophysiology of cerebral palsy and movement disorders</li> <li>describe epidemiology of cerebral palsy, including: <ul style="list-style-type: none"> <li>incidence and prevalence</li> <li>morbidity and mortality</li> </ul> </li> <li>describe the general features, natural history and disabling effects of cerebral palsy</li> <li>describe treatments of movement disorders (e.g. spasticity dystonia, neuromodulation), including: <ul style="list-style-type: none"> <li>oral medications</li> <li>neuromodulation <ul style="list-style-type: none"> <li>botulinum toxin</li> <li>phenol</li> <li>intrathecal baclofen</li> </ul> </li> <li>selective dorsal rhizotomy (SDR)</li> <li>deep brain stimulation (DBS)</li> <li>orthopaedic surgery</li> </ul> </li> <li>describe methods of assessment of functional loss</li> <li>describe social implications of cerebral palsy for patients and their families regarding: <ul style="list-style-type: none"> <li>education</li> <li>social development</li> <li>sexual development and fertility</li> <li>vocational options</li> </ul> </li> <li>identify community support services</li> <li>define strategies for transitional health care.</li> </ul>	<ul style="list-style-type: none"> <li>make a comprehensive patient assessment identifying degree of impairment(s), disability and activity limitation or participation restriction, associated physical and psychological disability, and potential for rehabilitation</li> <li>formulate rehabilitation management plans specifying appropriate modalities of assessment and treatment, and recognising needs and expectations of patients and families</li> <li>perform physical evaluation for the lower limb, including: <ul style="list-style-type: none"> <li>2D and 3D gait analysis</li> <li>hip surveillance</li> <li>biomechanical examination</li> <li>Gross Motor Function Classification System (GMFCS) and Functional Mobility Scale (FMS) tools</li> <li>muscle tone and spasticity</li> <li>outcome measurement tools</li> </ul> </li> <li>use an effective hip surveillance program, including physical evaluation and interpretation of x-rays</li> <li>perform physical evaluation for the upper limb, including: <ul style="list-style-type: none"> <li>range of movements</li> <li>spasticity</li> <li>pre- and post-intervention assessment tools</li> </ul> </li> <li>perform medical interventions such as botulinum toxin injections, phenol blocks and management of intrathecal baclofen pumps</li> <li>coordinate and review patient management</li> <li>counsel and educate patients and families regarding the ongoing effects of cerebral palsy</li> <li>appropriately recommend young persons for SDR or DBS.</li> </ul>

DOMAIN 3	CLINICAL SKILLS
Theme 3.3	Acquired Brain Injury
Learning Objective 3.3.1	Assess and manage patients with acquired brain injury
Knowledge	Skills
<ul style="list-style-type: none"> <li>• describe aetiology, pathogenesis and pathophysiology of acquired brain injury, traumatic and nontraumatic</li> <li>• describe general features, natural history and disabling effects of acquired brain injury, including: <ul style="list-style-type: none"> <li>• pre-injury factors</li> <li>• age of patient</li> <li>• location and severity of injury</li> <li>• other significant injuries</li> </ul> </li> <li>• differentiate between the rehabilitation processes required for acute inpatient and ambulatory and school setting management for the developing child with brain injury</li> <li>• describe methods of assessment of functional loss related to brain injury</li> <li>• describe social implications for brain injured patients and their families regarding: <ul style="list-style-type: none"> <li>• education</li> <li>• social development</li> <li>• sexual development and fertility</li> <li>• vocational options</li> </ul> </li> <li>• identify appropriate community support services</li> <li>• define strategies for transitional health care</li> <li>• describe the potential impact of the timing of injury on the developing brain</li> <li>• describe indications for and the use of pharmacotherapy for cognitive impairment, attention problems and mood disorders as it relates to brain injury</li> <li>• describe dysautonomia, its risk and trigger factors and management strategies.</li> </ul>	<ul style="list-style-type: none"> <li>• make a comprehensive patient assessment identifying degree of impairment, disability and activity limitation or participation restriction, associated physical and psychological disability, and potential for rehabilitation</li> <li>• formulate rehabilitation management plans specifying appropriate modalities of assessment and treatment, and recognising needs and expectations of patients and families</li> <li>• review and coordinate patient management with respect to acute, chronic and minimally responsive patients</li> <li>• communicate with team members, patients, families, and other medical practitioners and agencies including schools, involved in the patient's care</li> <li>• counsel and educate patients, families and school staff regarding the ongoing effects of acquired brain injury</li> <li>• initiate and evaluate need for drug therapy in liaison with appropriate allied health clinicians, with appropriate outcome tools</li> <li>• integrate advice from team members to determine appropriate future educational or vocational settings for patients.</li> </ul>

DOMAIN 3	CLINICAL SKILLS
Theme 3.4	Limb Deficiencies in Children
Learning Objective 3.4.1	Assess and manage patients with limb deficiencies
Knowledge	Skills
<ul style="list-style-type: none"> <li>describe aetiology, pathogenesis and pathophysiology of limb deficiencies</li> <li>describe isolated and syndromic congenital upper and lower limb deficiencies and amputations, along with their management</li> <li>describe surgical treatment and revision of congenital disorders</li> <li>describe traumatic and acquired limb deficiencies or amputations and their management</li> <li>identify adaptive devices, including their indications, contraindications and training required</li> <li>interpret prosthetics and orthotics, including: <ul style="list-style-type: none"> <li>biomechanical principles</li> <li>methods of fabrication</li> <li>assessment and follow-up</li> <li>indications for specific prostheses/orthoses at different developmental stages</li> </ul> </li> <li>describe social implications for patients and their families regarding: <ul style="list-style-type: none"> <li>education</li> <li>social development</li> <li>sexual development and fertility</li> <li>vocational options</li> </ul> </li> <li>identify government, private and community support services.</li> </ul>	<ul style="list-style-type: none"> <li>make a comprehensive patient assessment identifying degree of impairment, disability and activity limitation or participation restriction, associated physical and psychological disability, and potential for rehabilitation</li> <li>formulate rehabilitation management plans specifying appropriate modalities of assessment and treatment, and recognising needs and expectations of patients and families</li> <li>review and coordinate patient management</li> <li>communicate with team members, patients, families and other medical practitioners and agencies, including schools involved in the patient's care</li> <li>counsel and educate patients, families and schools regarding ongoing effects of limb deficiencies</li> <li>provide information and support during antenatal counselling sessions for a family with an affected baby</li> <li>choose appropriate prosthesis to facilitate play, sport and leisure activities.</li> </ul>

DOMAIN 3	CLINICAL SKILLS
Theme 3.5	Neural Tube Defects and Related Conditions
Learning Objective 3.5.1	Assess and manage patients with neural tube defects
Knowledge	Skills
<ul style="list-style-type: none"> <li>describe aetiology, pathogenesis and pathophysiology of neural tube defects (e.g. myelodysplasia, spina bifida, sacral agenesis) and associated conditions and comorbidities such as: <ul style="list-style-type: none"> <li>Arnold-Chiari malformations</li> <li>hydrocephalus</li> </ul> </li> <li>describe methods of prevention of neural tube defects and antenatal care</li> <li>describe methods of assessing functional loss</li> <li>describe methods of monitoring nutrition, bone health, scoliosis and renal function associated with neural tube defects</li> <li>describe social implications for patients and families regarding: <ul style="list-style-type: none"> <li>education</li> <li>social development</li> <li>sexual development and fertility</li> <li>vocational options</li> </ul> </li> <li>identify appropriate community support services</li> <li>define strategies for transitional health care.</li> </ul>	<ul style="list-style-type: none"> <li>make comprehensive patient assessments identifying degree of impairment, disability and activity limitation or participation restriction, associated physical and psychological disability, and potential for rehabilitation</li> <li>formulate rehabilitation management plans specifying appropriate modalities of assessment and treatment, and recognising needs and expectations of patients and families</li> <li>review and coordinate patient management</li> <li>provide information and support at antenatal counselling sessions in regard to likely outcomes for affected babies</li> <li>communicate with team members, patients, families, and other medical practitioners and agencies, including schools, involved in the patient's care</li> <li>counsel and educate patients, families and schools regarding ongoing effects of neural tube defects and related conditions.</li> </ul>

DOMAIN 3	CLINICAL SKILLS
Theme 3.6	Spinal Cord Injury and Disease
Learning Objective 3.6.1	Assess and manage patients with spinal cord injury and disease
Knowledge	Skills
<ul style="list-style-type: none"> <li>describe aetiology, pathogenesis, pathophysiology and epidemiology of traumatic and nontraumatic SCI in Australia/New Zealand, including: <ul style="list-style-type: none"> <li>incidence and prevalence</li> <li>long-term outcomes</li> <li>mortality and morbidity</li> </ul> </li> <li>describe methods of assessment and management of permanent dysfunction resulting from SCI, including the American Spinal Injury Association (ASIA) assessment</li> <li>describe methods of monitoring nutrition, bone health, scoliosis and renal function associated with SCI and disease</li> <li>describe social implications for patients and their families regarding: <ul style="list-style-type: none"> <li>education</li> <li>social development</li> <li>sexual development</li> <li>fertility implications of SCI</li> <li>vocational options</li> </ul> </li> <li>identify community support services</li> <li>recognise the impact of growth on SCI</li> <li>describe strategies for transitional health care</li> <li>identify acute, subacute and community-based SCI services in relevant state of Australia or New Zealand.</li> </ul>	<ul style="list-style-type: none"> <li>perform comprehensive assessments of patients in the acute setting with SCI, as well as patients with stable SCI/disease, identifying all medical complications and functional losses and potential for rehabilitation</li> <li>formulate management plans that specify necessary medical, physical and functional rehabilitation goals and treatments in inpatient, outpatient and community settings, including schools</li> <li>promote play, sport and leisure activities as related to the injury</li> <li>review and coordinate patient management</li> <li>communicate with team members, patients, families, and other medical practitioners/agencies involved in the patient's care</li> <li>counsel and educate patients and families and schools with regard to the ongoing effects of SCI and disease</li> <li>predict future needs regarding rehabilitation management, nursing and attendant care, home and school modifications and equipment.</li> </ul>

DOMAIN 3	CLINICAL SKILLS
Theme 3.7	Neuromuscular Conditions
Learning Objective 3.7.1	Assess and manage patients with neuromuscular conditions
Knowledge	Skills
<ul style="list-style-type: none"> <li>• describe traumatic and nontraumatic causes of neuromuscular conditions, including:               <ul style="list-style-type: none"> <li>• spinal muscular atrophies</li> <li>• muscular dystrophies</li> <li>• motor and sensory neuropathies</li> <li>• genetic ataxias</li> </ul> </li> <li>• describe methods of assessing functional loss</li> <li>• describe social implications for patients and their families regarding:               <ul style="list-style-type: none"> <li>• education</li> <li>• social development</li> <li>• vocational options</li> </ul> </li> <li>• identify psychological and ethical issues faced by patients with neuromuscular conditions, including:               <ul style="list-style-type: none"> <li>• adjustment to disability/increasing impairment</li> <li>• impact on family</li> </ul> </li> <li>• identify government, independent and community support services</li> <li>• define strategies for transitional health care</li> <li>• describe methods of monitoring and treating associated spinal, respiratory and bone health complications.</li> </ul>	<ul style="list-style-type: none"> <li>• assess patients, identifying impairment, all medical complications and functional losses resulting from neurological disease and dysfunction, and evaluate potential for rehabilitation</li> <li>• formulate rehabilitation management plans specifying appropriate modalities of assessment and treatment, recognising changing needs and expectations of patients and families</li> <li>• prescribe appropriate pharmacological treatments for the condition</li> <li>• review and coordinate patient management</li> <li>• communicate with team members, patients, families, and other medical practitioners/agencies involved in the patient's care</li> <li>• counsel and educate patients and families regarding ongoing effects of neuromuscular conditions</li> <li>• communicate with palliative care services</li> <li>• recognise changing equipment needs.</li> </ul>

DOMAIN 3		CLINICAL SKILLS	
Theme 3.8		Musculoskeletal Conditions	
Learning Objective 3.8.1		Assess and manage patients with musculoskeletal conditions	
Knowledge		Skills	
<ul style="list-style-type: none"> <li>describe the aetiology, pathogenesis and pathophysiology of musculoskeletal conditions</li> <li>summarise biomechanical and kinesiological aspects of human function</li> <li>describe the physiology and influence of rest, mobilisation and exercise</li> <li>explain traumatic and nontraumatic causes of musculoskeletal conditions, including: <ul style="list-style-type: none"> <li>orthopaedic conditions, such as Perthes disease</li> <li>juvenile forms of arthritis</li> <li>major multi-trauma</li> </ul> </li> <li>describe methods of assessing functional loss</li> <li>describe social implications for patients and their families regarding: <ul style="list-style-type: none"> <li>education</li> <li>social development</li> <li>sexual development and fertility</li> <li>vocational options</li> </ul> </li> <li>describe psychological issues potentially faced by patients with neuromuscular conditions, including: <ul style="list-style-type: none"> <li>adjustment to disability</li> <li>impact on family</li> </ul> </li> <li>identify government and community support services</li> <li>define strategies for transitional health care.</li> </ul>		<ul style="list-style-type: none"> <li>assess patients, identifying impairment, all medical complications and functional losses resulting from musculoskeletal conditions and evaluate potential for rehabilitation</li> <li>formulate a rehabilitation management plan that specifies appropriate modalities of assessment and treatment, and recognises the needs and expectations of patients and families</li> <li>review and coordinate patient management</li> <li>communicate with team members and other medical practitioners/agencies involved in the patient's care</li> <li>counsel and educate patients and families regarding ongoing effects of musculoskeletal conditions</li> <li>communicate with patients, families, schools concerning appropriate mobilisation and exercise needs.</li> </ul>	



DOMAIN 3	CLINICAL SKILLS
Theme 3.9	Persistent Pain
Learning Objective 3.9.1	Assess and manage the identified rehabilitation needs of patients with persistent pain
Knowledge	Skills
<ul style="list-style-type: none"> <li>describe the aetiology, pathogenesis and pathophysiology of persistent pain</li> <li>describe epidemiology of persistent pain in children and adolescents, including: <ul style="list-style-type: none"> <li>incidence, prevalence and morbidity</li> <li>common causes</li> <li>natural history</li> </ul> </li> <li>describe complex regional pain syndromes</li> <li>describe common neuromusculoskeletal types of chronic pain</li> <li>describe methods of pain assessment</li> <li>describe the use of physical modalities in pain management</li> <li>describe the indications, contraindications and effectiveness of drug interventions for persistent pain</li> <li>outline the principles of psychological management for patients with persistent pain</li> <li>describe the role of pain management teams, including: <ul style="list-style-type: none"> <li>roles of individual disciplines within the team</li> <li>timely interdisciplinary team management in appropriate treatment venues.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>assess patients, identifying the nature and extent of pain, and associated physical and psychological disability</li> <li>evaluate potential for rehabilitation</li> <li>formulate rehabilitation management plans specifying appropriate modalities of assessment and treatment</li> <li>coordinate and review team-based interdisciplinary patient management, including the integration of appropriate physical and psychological interventions</li> <li>communicate with team members, patients, families, schools and other medical practitioners/agencies involved in the patient's care</li> <li>counsel and educate patients, families and schools regarding ongoing effects of persistent pain.</li> </ul>

DOMAIN 3	CLINICAL SKILLS
Theme 3.10	Complex Low Incidence Conditions
Learning Objective 3.10.1	Assess and manage the identified rehabilitation needs of patients with developmental/genetic/chromosomal syndromes with physical impairments
Knowledge	Skills
<ul style="list-style-type: none"> <li>describe the aetiology, pathogenesis and pathophysiology of complex low-incidence conditions</li> <li>outline assessment and management of:               <ul style="list-style-type: none"> <li>burns</li> <li>short stature</li> <li>severe congenital heart and lung disease</li> </ul> </li> <li>outline assessment and management of genetic and chromosomal syndromes with physical impairments such as:               <ul style="list-style-type: none"> <li>hypermobility syndromes, including Ehlers-Danlos syndromes</li> <li>arthrogryposes</li> <li>osteogenesis imperfecta</li> <li>skeletal dysplasias</li> <li>Marfan syndrome.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>perform comprehensive patient assessments identifying the impairment, disability and activity limitation or participation restriction and associated physical and psychological disability</li> <li>evaluate potential for rehabilitation</li> <li>formulate rehabilitation management plans specifying appropriate modalities of assessment and treatment, recognising needs and expectations of patients and their families</li> <li>review and coordinate patient management</li> <li>communicate with team members, patients, families, and other medical practitioners/agencies, including schools involved in the patient's care</li> <li>educate patients, families and schools regarding ongoing effects of developmental/genetic/chromosomal syndromes with physical impairments.</li> </ul>

## APPENDIX

### Glossary of Acronyms and Initialisms

<b>AFO</b>	Ankle-foot orthosis
<b>ASIA</b>	American Spinal Injury Association
<b>DBS</b>	Deep brain stimulation
<b>DTPA</b>	Diethylene triamine pentaacetic acid
<b>FES</b>	Functional electrical stimulation
<b>FMS</b>	Functional Mobility Scale
<b>GMFCS</b>	Gross Motor Function Classification System
<b>HKAFO</b>	Hip-knee-ankle-foot orthosis
<b>ICF</b>	International Classification of Functioning and Disability
<b>KAFO</b>	Knee-ankle-foot orthosis
<b>RGO</b>	Reciprocating gait orthosis
<b>SCI</b>	Spinal cord injury
<b>SDR</b>	Selective dorsal rhizotomy

## SUGGESTED LEARNING RESOURCES

### Disability and Activity Limitation

#### Texts

- Pediatric Rehabilitation edited by Michael A Alexander, Dennis Matthews. 4th Edition, 2010
- Child Neurology by Menkes, 7th Edition.
- Diseases of the nervous system in childhood. Ed Jean Aicardi, Martin Bax, Christopher Gillberg, London: Mac Keith Press 2009 3rd edition
- Fundamentals of pediatric orthopedics / Lynn T Staheli. Philadelphia, PA: Lippincott Williams and Wilkins, 2007 4th edition
- Handbook of Botulinum Toxin Treatment, second edition, Ed. Peter Moore and Markus Naumann, Blackwell Science, 2003.
- Movement disorders in children / Emilio Fernandez-Alvarez, Jean Aicardi, London: Mac Keith Press 2001
- Muscle Disorders in Childhood by Victor Dubowitz. London 1995 2nd edition
- Orthopaedic Management in Childhood by Williams and Cole. London: Chapman and Hall 1991 2nd edition
- Pediatric orthopaedic secrets / [edited by] Lynn T. Staheli, Kit M Song. Philadelphia, PA :Mosby / Elsevier, 2007.3rd edition
- Pediatric neuroimaging / A. James Barkovich. Philadelphia, PA: Lippincott Williams and Wilkins, 2005. 4th edition
- Philadelphia: Hanley and Belfus, 1999 3rd edition
- Practice of pediatric orthopedics / Lynn T Staheli. Philadelphia, PA: Lippincott Williams and Wilkins, 2006 2nd edition
- Textbook of Neural Repair and Rehabilitation, Neural Repair and Plasticity, ed. M. Selzer, S. Clarke, L. Cohen, P. Duncan, and F. Gage, Vol 1, 2006, Cambridge University Press.
- Textbook of Neural Repair and Rehabilitation, Medical Rehabilitation, ed. M. Selzer, S. Clarke, L. Cohen, P. Duncan, and F.Gage, Vol. II, 2006, Cambridge University Press.
- Upper motor neurone syndrome and spasticity, 2nd edition, Ed. Michael Barnes and Garth Johnson. Cambridge University Press 2008

#### Journals:

- Developmental Medicine and Child Neurology
- Journal of Paediatric Surgery
- Developmental Neurorehabilitation (formerly Pediatric Rehabilitation)
- Journal of Child Neurology
- Journal of Children's Orthopaedics
- Journal of Paediatrics and Child Health
- Journal of Pediatric Orthopaedics

## Websites

- Pediatric Rehabilitation - AAPMR March Supplement, 2010 Study Guide <http://www.archives-pmr.org/issues>
- American Academy for Cerebral Palsy and Developmental Medicine (AAPDM) <http://www.aacpdm.org/>
- CanChild Centre for Childhood Disability Research <http://www.canchild.ca/en> Kids Rehab: The Children's Hospital Westmead (NSW) Rehabilitation Department <http://www.chw.edu.au/rehabilitation/>
- Rehabilitation Services, Sydney Children's Hospital (NSW) <http://www.sch.edu.au/services/services.asp?q=rehabilitation>
- The Royal Children's Hospital Paediatric Rehabilitation Service (Vic) [http://www.rch.org.au/rehab/index.cfm?doc\\_id9485](http://www.rch.org.au/rehab/index.cfm?doc_id9485)
- The Victorian Paediatric Rehabilitation Service <http://www.health.vic.gov.au/vprs/index.htm>
- Department of Paediatric rehabilitation, Royal Children's Hospital, Brisbane (Qld) [http://www.health.qld.gov.au/rch/professionals/Dept\\_Paed\\_Rehab/ah\\_dpr.asp](http://www.health.qld.gov.au/rch/professionals/Dept_Paed_Rehab/ah_dpr.asp)
- Princess Margaret Hospital, WA [http://www.pmh.health.wa.gov.au/services/paediatric\\_rehabilitation/index.htm](http://www.pmh.health.wa.gov.au/services/paediatric_rehabilitation/index.htm)
- Paediatric Rehabilitation Department, Women's and Children's Hospital, Adelaide (SA) <http://www.wch.sa.gov.au/services/az/divisions/pphealth/paedrehab/index.html>

## Bladder and Bowel Care

### Texts

- Management of disorders of bladder and bowel control in childhood / Alexander von Gontard, Tryggve Neveus. London : Mac Keith Press, 2006. (Clinics in Developmental Medicine 170)
- The Child with a Spinal Cord Injury Shriners Hospitals for Crippled Children Symposium Edited by Randal R Betz, M. J. Mulcahey. Published by the American Academy of Orthopaedic Surgeons 1994

## Prosthetics, Biomechanics and Gait

### Texts

- Paediatric orthotics / edited by Christopher Morris; orthopaedic editor Luciano S Dias. London :Mac Keith Press, 2007
- Gait analysis in cerebral palsy / James R Gage. London:MacKeith Press, 1991

## Cerebral Palsy

### Texts

- Gait analysis in cerebral palsy / James R Gage. London: MacKeith Press, 1991
- Orthopaedic Management in Cerebral Palsy by Eugene Bleck (Clinics in Developmental Medicine) London: Mac Keith Press 2007 2nd edition
- The Management of Spasticity Associated with the Cerebral Palsies in Children and Adolescents, ed. A.L. Albright & B. Neville, First Edition, 2000, Churchill Communications.
- The Treatment of gait problems in cerebral palsy / edited by James R Gage. London: Mac Keith Press, 2009. 1 Hardback, 2 DVDs

## Websites

- Australian Hip Surveillance Guidelines [www.cpaustralia.com.au/ausacpem](http://www.cpaustralia.com.au/ausacpem)
- Treating children with botulinum toxin. Westmead, NSW: kids Rehab: The Children's Hospital at Westmead, Rehabilitation Department. [www.chw.edu.au/rehab/brain\\_injury/resources.htm](http://www.chw.edu.au/rehab/brain_injury/resources.htm)

## Acquired Brain Injury

### Texts

- Head injury in children and adolescents / edited by Duane L Macgregor. Mac Keith Press 2007
- Management of the Brain Injured child Edited by Richard Appleton and Tony Baldwin Oxford University Press second Edition 2005
- Brain Injury Medicine, Principles and Practice", Ed. N. Zasler, D. Katz, R. Zafonte. Demos New York. 2007

### Websites

- The Children's Hospital at Westmead, Useful Resources About Acquired Brain Injury [www.chw.edu.au/rehab/brain\\_injury/resources.htm](http://www.chw.edu.au/rehab/brain_injury/resources.htm)

## Limb Deficiencies in Children

### Texts

- Smith, Michael and Bowker, Atlas of Amputations and Limb Deficiencies: Surgical, Prosthetic and Rehabilitation Principles. American Academy of Orthopedic Surgeons : 2004
- The management of the limb deficient child and its family by Y Setoguchi. Child Amputee Prosthetics Project, Shriners Hospital, Los Angeles, USA. Prosthetics and Orthotics International 1991, Vol. 15, No. 2, Pages 78-81
- Child with a limb deficiency, Shriner, American Academy of Orthopedic Surgeons

## Neural Tube Defects and Related Conditions

### Texts

- Caring for the child with spina bifida / edited by John F Sarwark, John P. Lubicky. Rosemont, IL: American Academy of Orthopedic Surgeons 2001
- Practical paediatrics - spina bifida chapter by Flett & Russo new edition 2011

## Spinal Cord Injury and Disease

### Texts

- The child with a spinal cord injury / edited by Randal R Betz, M.J. Murcahey. Rosemont, IL : American Academy of Orthopedic Surgeons 1996

### Websites

- The Spinal Cord Injury Network [www.spinalnetwork.org.au](http://www.spinalnetwork.org.au)

## Musculoskeletal Conditions

### Texts

- Malanga GA and Nadler SF "Musculoskeletal Physical Examination: An Evidence-based Approach

## Complex Low Incidence Conditions

### Texts

- Management of genetic syndromes / edited by Suzanne B Cassidy, Judith E Allanson. Hoboken, N.J: Wiley-Liss, 2005. 2nd edition.
- Arthrogyrosis: A Text Atlas Eds Staheli L, Hall J, Jaffe K and Paholke D Cambridge University Press 1998
- Keer R and Grahame R, Hypermobility Syndrome Butterworth/Heinemann