

Australian College of Chiropractic Paediatrics

Advanced Paediatric Chiropractor Quality Practice Framework



Contents

Advar	nced Paediatric Chiropractor Quality Practice Framework	1
Qualit	ity Practice Framework in Paediatrics	4
Impro	oving outcomes for children	5
Clinical excellence in paediatric chiropractic practice		5
Advanced Paediatric Chiropractor Commitments		7
Ext	tended clinical reasoning in practice	7
ľ	Neonates, infants and young children (under 11 years of age)	7
(Children aged 11-17 years	8
Advar	nced Paediatric Chiropractor Core Competencies	9
Part A: Core competency framework for an Advanced Paediatric Chiropractor		9
1.	Role 1: Practise as an informed Advanced Paediatric Chiropractor	9
2.	Role 2: Communicator	10
3.	Role 3: Collaborator	11
4.	Role 4: Leader	12
5.	Role 5: Health advocate	12
6.	Role 6: Scholar	13
7.	Role 7: Professional	14
Part B: Core knowledge and clinical competency framework		15
1.	Safety and Consent	15
2.	Broader Healthcare Requirements	15
3.	Paediatric Manual Therapy Techniques and Management	16
4.	Neonate (0-8 Weeks of Age)	17
5.	Infant (2-12 Months of Age)	19
6.	Toddler (1-2 years of age) and Pre-schooler (2-5 Years of Age)	21
7.	School-aged Child (5-15 Years of Age)	23
8.	Adolescent (13-19 Years of Age)	26



Advanced clinical reasoning in practice	29
• ,	
References within this document	30



Quality Practice Framework in Paediatrics

Introduction

The ACCP recognises that examination and care of the paediatric patient is fundamentally different to that of the adult body. Alongside the extensive physical changes undergone through the age groups, there are also numerous conditions that are typically paediatric-specific.

While Australian university graduate level courses do include a knowledgebase component in regard to human development and the care of infants and children, courses are focused on care of the adult patient.

The ACCP recognises that chiropractors may choose to pursue postgraduate study in paediatric chiropractic and may have a significant clinical population of paediatric patients, with some consulting paediatric patients only.

The concept of Recognition of Advanced practice is not new. Worldwide there are many medical and allied health advanced practitioner frameworks aimed at recognising advancement in education in a particular field.^{1,2}

Advanced Practice recognition through titling provides public acknowledgement and enhances searchability for members of the public, other health professionals, third party payers and others to locate chiropractors with advanced paediatric training and extended clinical scope of practice. Titling also assists employers in their recruitment process to source independently verified practitioners with advanced paediatric skills.

This document aims to clearly outline the extended clinical reasoning skills and formal learning areas necessary for the titled practitioner.

¹ (Gellatly & Galbraith, 2020)

² (Jakimowicz et al., 2017)



Improving outcomes for children

In Australia, a child is defined as a person below 18 years of age. This is approximately 24% of the Australian population in 2020, with 0-14 year old's comprising 18.6% and 15-19 year old's 5.8%.³

In 2016, there were over 1 million chiropractic paediatric appointments per year in Australia, totalling 8.6% of annual chiropractic visits.⁴

Chiropractors are primary health care practitioners. Through clinical involvement, clinical support, early detection and appropriate referral, chiropractors are involved in the prevention and management of neuromusculoskeletal conditions and other diseases in children.

The child's needs are recognized as primary and as primary health care practitioners Chiropractors work in collaboration with other health professionals as appropriate on a case-by-case basis. Chiropractors may receive referrals from other health care practitioners and/or refer to other health care practitioners. Whilst Advanced Paediatric Chiropractors are primarily involved in neuromusculoskeletal disorders, the ability to identify and manage disorders across all paediatric age ranges and all body systems is required.

Clinical excellence in paediatric chiropractic practice

Designing pathways that recognize clinical skills in specific areas of practice and processes is a priority for ACCP. This strategic focus will build on and complement statements on Scope of Practice in Chiropractic.⁵

This framework acknowledges that the knowledge, skills and scope of practice of chiropractors with postgraduate training and education in paediatrics can vary depending on

-

³ (Twenty Years of Population Change | Australian Bureau of Statistics, 2020)

⁴ (Australian Chiropractors Association, 2019)

⁵ (Chiropractic Australia, 2015)



source of education, workplace requirements, clinical team requirements, and relevant industry policies. As a result this document is not intended to define all knowledge sets and skills possessed by these chiropractors, nor all interventions these practitioners offer.

The framework outlines knowledge and skills that the ACCP expects paediatric chiropractors seeking standing and recognition within this group to possess as a minimum requirement. This framework is not mandatory and pertains only to members of the ACCP.

The framework has been informed by patient demand, targeted consultation with relevant industry stakeholders and best practice consensus documents published within the chiropractic profession.

This document is a living document. It will be revised as needed to be congruent with developments in evidence-informed practice, changes to patient need, updates to clinical standards, and workforce planning need.

It is written in alignment with the "Healthy, Safe and Thriving: National Strategic Framework for Child and Youth Health". As such, this document recognises the important role of primary practice as a gateway to broader health service access; the importance of physical health to emotional, psychological and environmental wellbeing; and the critical role of early intervention for later health.

This framework has a specific focus on normal development, identifying and managing risks to this as a critical component for clinical excellence and patient-centred care with this diverse patient population.

This quality framework recognises and incorporates internationally accepted definitions in paediatric practice.

.

⁶ (Australian Government Department of Health, 2015)



Advanced Paediatric Chiropractor Commitments

Advanced Paediatric Chiropractors demonstrate long-term commitment to sustained practice in paediatrics. Through substantial further education and quality clinical review, these members demonstrate ability to provide extensive clinical advice and interventions in paediatrics.

Extended clinical reasoning in practice

Neonates, infants and young children (under 11 years of age)

Advanced Paediatric Chiropractors demonstrate ability to maintain practice environments that are age and developmentally appropriate to promote security, optimal health and accident mitigation in line with indicators of sound practice design for young children.

Advanced Paediatric Chiropractors demonstrate ability to apply and adhere to legal requirements for informed consent in neonates, infants, young children and their caregivers. They exemplify an ability to detect carer or child distress, psychosocial, coping and/or other child risk indicators. They also demonstrate awareness of local service networks for family-centred care, child and family welfare.

Advanced Paediatric Chiropractors demonstrate capacity to perform a thorough paediatric case history that includes pregnancy, obstetric and perinatal history and outcome assessments for early adaptive responses, including feeding, sleeping and bodily elimination. They demonstrate the skills needed to undertake systems review for neonates, infants and young children, including general health screening, neurological and orthopaedic examinations for general neurological and musculoskeletal conditions in early development.

Advanced Paediatric Chiropractors have proven skills in planning and delivering management strategies, health promotion, and family-centred management approaches for common musculoskeletal conditions in neonates, infants and early childhood - as defined in this framework - including multiple therapeutic strategies to address deviations in development.



Children aged 11-17 years

Advanced Paediatric Chiropractors demonstrate ability to identify and plan for management of yellow flag risks in adolescents in the home, school or social environment. They also exemplify skill needed to work within the boundaries and limits of consent, privacy and confidentiality in adolescents.

Advanced Paediatric Chiropractors perform adolescent neurological, orthopaedic and postural assessments using established clinical evaluations, monitoring protocols and approaches to identify clinical variations in normal adolescent development. This includes performing body systems examination, regional examinations, detailed case histories for growth, development, lifestyle, leisure and other living factors relating to child development and function.

Advanced Paediatric Chiropractors exemplify the clinical skill to plan for management of hormonal, endocrine and orthopaedic factors relating to development in adolescent patients, including identifying pathology and symptomatology in this age group. They can determine clinical goals that are specific, measurable, realistic and time specific primed to the general health status, functional needs and assessment findings of developing adolescents. They can develop multimodal management plans drawing on evidence informed manual therapies, referral pathways, lifestyle advice, education and exercise where indicated. These members can revise management plans depending on assessed symptoms, functional issues, risks and complexities identified in adolescents.



Advanced Paediatric Chiropractor Core Competencies

Part A: Core competency framework for an Advanced Paediatric Chiropractor

1. Role 1: Practise as an informed Advanced Paediatric Chiropractor

- 1.1. Key competency 1: Practise chiropractic within a defined scope of practice and expertise
 - 1.1.1.Apply knowledge of both normal growth and development, as well as common and serious paediatric conditions as listed further within this document
 - 1.1.2.Identify cases outside your scope of practice and appropriately refer or co-manage where indicated.
 - 1.1.3. Perform appropriately timed clinical assessments with adequate responsiveness to situations where the wellbeing of the patient is endangered or compromised, and present recommendations in an organized manner
 - 1.1.4. Acknowledge the vulnerability of neonates, infants, children, and adolescents
 - 1.1.5. Identify concerns relating to the wellbeing of neonates, infants, children, and adolescents
 - 1.1.6. Ensure the safeguarding of neonates, infants, children, and adolescents

1.2. Key competency 2: Perform a patient-centered clinical assessment and establish a management plan

- 1.2.1. Prioritize issues to be addressed in a patient encounter
- 1.2.2. Elicit a history and perform a physical examination for the purpose of formulating an appropriate (differential) diagnosis and management plan which addresses disease prevention and health promotion
- 1.2.3. Establish goals of care in collaboration with patients and their caregivers, which may include slowing disease progression, treating symptoms, improving function, and comanagement with other health providers.

1.3. Key competency 3: Perform investigations, tests and provide therapeutic care and advice in case management

- 1.3.1.Order the appropriate investigations for paediatric assessment; interpret their results for the purpose of formulating an appropriate (differential) diagnosis; utilize the most appropriate therapies and interventions, home exercises where appropriate and dietary and supplementation advice; all in an evidence-based manner
- 1.3.2.Obtain and document informed consent, with correct explanation of the risks and benefits of, and the rationale for, a proposed procedure or therapy

Advanced Paediatric Chiropractor – Quality Practice Framework Last Updated: 18-11-2022

© 2022, Australian College of Chiropractic Paediatrics. All rights reserved.

Version: 20221811



1.3.3.Discuss all care options which may include no care, referral and/or co-management with other health care providers.

1.4. Key competency 4: Establish plans for ongoing care

- 1.4.1.Implement a patient-centred care plan that supports ongoing care and sustained outcome
- 1.4.2. Follow-up on investigations, response to treatment, adherence to recommendations and referral outcomes in the management of acute or chronic illness in children

1.5. Key competency 5: Actively contribute, as an individual and as a member of a team providing care, to the continuous improvement of health care quality and patient safety

- 1.5.1.Recognize any risk factors in healthcare delivery, including patient safety incidents; and respond appropriately
- 1.5.2.Identify the limits of one's own competency and act within them by asking for help when needed
- 1.5.3. Deliver the highest quality of best evidence care, including the adoption of strategies and the participation in activities that contribute to the promotion of patient safety, and address human and system factors

2. Role 2: Communicator

2.1. Key competency 1: Establish professional therapeutic relationships with patients and their caregivers

- 2.1.1.Communicate correctly and efficiently, using a patient-centred approach that encourages patient trust and autonomy and is characterized by empathy, respect, sensitivity, and compassion to establish a positive therapeutic relationship with patients and their caregivers
- 2.1.2. Recognise cultural needs and sensitivities and respond appropriately
- 2.1.3.Optimize the physical environment for patient comfort, dignity, privacy, engagement, and safety
- 2.1.4.Respond to a patient's and a patient's caregivers' non-verbal behaviours to enhance communication and aid identification of concerns
- 2.1.5. Appropriately manage disagreements and emotionally charged conversations
- 2.2. Key competency 2: Elicit and synthesize accurate and relevant information, incorporating the perspectives of patients and their caregivers

Advanced Paediatric Chiropractor – *Quality Practice Framework* Last Updated: 18-11-2022



- 2.2.1.Use patient-centred interviewing skills and active listening skills to effectively elicit and draw together relevant biomedical and psychosocial information and perspectives
- 2.2.2. Provide a clear structure for and manage the flow of the patient encounter
- 2.2.3.Seek and synthesize relevant information and perspectives from all necessary sources, including the patient's family or other healthcare professionals, with patient's or caregiver's consent where appropriate

2.3. Key competency 3: Share health care information and plans with patients, their caregivers and health care professionals

- 2.3.1.Communicate relevant understandable oral and written information and explanations to (young) patients and their caregivers that are clear, accurate, and timely, while checking for patient and family understanding
- 2.3.2. Facilitate discussions with patients and their caregivers in a way that is respectful, non-judgmental, and culturally appropriate when developing a shared plan of care
- 2.3.3.Communicate relevant information to other health care professionals involved in the care of the patient
- 2.3.4. Disclose any adverse events to patients and their caregivers accurately and appropriately

2.4. Key competency 4: Document and share written and electronic information to optimize clinical decision-making, patient safety, confidentiality, and privacy

- 2.4.1.Document all clinical encounters in an accurate, comprehensive, complete, timely, accessible manner, in compliance with regulatory and legal requirements
- 2.4.2. Maintain clear record-keeping and report-writing using a written health record, electronic medical record, or other digital technology
- 2.4.3. Share information with patients and others in a manner that respects patient privacy, confidentiality, and autonomy and enhances understanding and ability to consent

3. Role 3: Collaborator

3.1. Key competency 1: Work effectively with other colleagues in the healthcare professions

- 3.1.1.Demonstrate efficient and effective communication and interpersonal skills for the establishment of positive relationships with colleagues in the healthcare professions that support relationship-centred collaborative care
- 3.1.2. Participate appropriately in a professional healthcare team, including the engagement in respectful shared decision-making, to achieve optimal patient care

Advanced Paediatric Chiropractor – *Quality Practice Framework* Last Updated: 18-11-2022



- 3.1.3. Show professional respect for the views and contributions of colleagues in a range of roles in paediatric practice.
- 3.1.4.Implement strategies to promote understanding, manage differences, and resolve conflicts in a manner that supports a collaborative culture

4. Role 4: Leader

- 4.1. Key competency 1: Contribute to the improvement of health care delivery in teams, organizations, and systems
 - 4.1.1.Commit to quality assurance by taking into account systemic quality process evaluation and improvement
 - 4.1.2.Improve the quality of patient care, by optimizing patient safety and maintenance of own expertise while using health informatics and other trustable information sources
 - 4.1.3. Contribute to a culture that promotes patient safety
 - 4.1.4. Analyse patient safety incidents to enhance systems of care

4.2. Key competency 2: Demonstrate leadership in professional practice

- 4.2.1.Demonstrate leadership skills by effectively assigning, delegating and following-up on tasks to enhance healthcare
- 4.2.2. Manage challenging, complex and stressful situations with appropriate responses
- 4.2.3. Implement processes to ensure personal practice improvement

5. Role 5: Health advocate

- 5.1. Key competency 1: Respond to an individual patient's health needs by advocating for the patient within and beyond the clinical environment
 - 5.1.1. Work with patients and caregivers to address determinants of health that affect them and their access to needed health services or resources
 - 5.1.2.Use their influence and expertise to increase opportunities for patients and their caregivers to adopt healthy behaviours, and advance health as well as the well-being of individual patients and their caregivers
 - 5.1.3.Incorporate disease prevention, health promotion, and health surveillance into interactions with individual patients
 - 5.1.4. Use their influence and expertise to identify the determinants of health that affect children in order to advance child health and well-being within their community (if



applicable)

6. Role 6: Scholar

6.1. Key competency 1: Engage in the continuous enhancement of their professional activities through ongoing learning

- 6.1.1.Make a lifelong commitment to learning by accepting responsibility for developing, implementing, monitoring, and revising a personal continuing education strategy to enhance professional practice
- 6.1.2. Regularly reflect on and assess their performance using various internal and external data sources to identify opportunities for learning and improvement by holding a positive approach to receiving mentoring and educational supervision
- 6.1.3. Engage in collaborative learning to continuously improve personal practice and contribute to collective improvements in practice
- 6.1.4. Where possible deliver learning activities to students, colleagues, and other healthcare professionals

6.2. Key competency 2: Integrate best available evidence into practice

- 6.2.1.Identify areas of practice uncertainty and knowledge gaps in clinical and other professional encounters
- 6.2.2.Critically evaluate the integrity, reliability, and applicability of health-related research and literature
- 6.2.3. Integrate best available evidence into decision-making

6.3. Key competency 3: Contribute to the creation and dissemination of knowledge and practices applicable to health

- 6.3.1.Demonstrate an understanding of the scientific principles of research and scholarly inquiry and the role of research evidence in healthcare
- 6.3.2.Contribute to research (critical literature review, data collection and analysis, reporting research results)
- 6.3.3. Pose questions amenable to scholarly inquiry and select appropriate methods to address
- 6.3.4. Summarize and communicate to professional and lay audiences, including patients and their families, the findings of relevant research and scholarly inquiry



7. Role 7: Professional

7.1. Key competency 1: Demonstrate a commitment to patients by applying best practices and adhering to high ethical standards

- 7.1.1.Exhibit appropriate professional behaviours and relationships in all aspects of practice, demonstrating honesty, integrity, humility, commitment, compassion, respect, altruism, respect for diversity, and maintenance of confidentiality.
- 7.1.2. Demonstrate a commitment to excellence in all aspects of practice
- 7.1.3.Demonstrate reliability and responsibility in continuity of care by ensuring their accessibility to colleagues, patients and their caregivers
- 7.1.4. Demonstrate ethical personal and professional practice, including recognizing and responding to ethical issues encountered in practice and showing sensitivity and responsiveness to a diverse patient population
- 7.1.5. Manage conflicts of interest while following the principle that all decisions are to be made in the best interests of the patient
- 7.1.6. Exhibit professional behaviours in the use of technology-enabled communication

7.2. Key competency 2: Demonstrate a commitment to the profession by adhering to standards and participating in practitioner-led regulation

- 7.2.1.Fulfil and adhere to the professional and ethical codes, standards of practice, laws governing practice and comply with all legal and moral obligations for reporting disease and potential or real abuse/neglect
- 7.2.2.Recognize and respond to unprofessional and unethical behaviours in practitioners and other colleagues in the healthcare professions
- 7.2.3. Participate in peer assessment and standard-setting



Part B: Core knowledge and clinical competency framework

1. Safety and Consent

1.1. Indicators of child safety protocols, social and/or personal risk and response requirements

- 1.1.1.Knowledge of working with children check requirements in state or territory of practice.
- 1.1.2. Knowledge of potential indicators of child harm, abuse and/or neglect and reporting requirements and protocols in state or territory of practice.

1.2. Informed consent and family centered-care

- 1.2.1. Knowledge of informed consent issues in the clinical care of neonates, infants, young children and their caregivers.
- 1.2.2.Knowledge of family-centered care models and approaches, including strengths-based frameworks incorporating emphasis on the needs of caregivers. Critical knowledge in family-centered care would generally encompass awareness of family dynamics; indicators of stress, coping and failure to cope in caregivers and young children; as well as appropriate clinical engagement and communication styles.
- 1.2.3.Knowledge of biopsychosocial indicators of risk, essential of which are 'red' and 'yellow' flags in neonates, infants and children.⁷
- 1.2.4. Knowledge of biopsychosocial indicators of risk, essential of which are 'red' and 'yellow' flags in caregivers.
- 1.2.5. Knowledge of the implications of informed consent, caregiver issues and biopsychosocial indicators of risk in paediatric clinical practice
- 1.2.6. Knowledge and communication of best evidence-informed consent for various appropriate treatment and management options

1.3. Adolescent Informed consent

- 1.3.1. Knowledge of informed consent issues in adolescent clinical assessment and management.
- 1.3.2. Knowledge of privacy and confidentiality obligations within this stage of development.
- 1.3.3.Knowledge of the implications of informed consent, privacy and confidentiality for clinical practice with adolescents.

2. Broader Healthcare Requirements

- 2.1. Knowledge of screening protocols and indicators of clinical risk, as pertaining to:
 - Musculoskeletal system
 - Head, ears, eyes, nose, throat and mouth
 - Neurological systems
 - Cardio-vascular system

Advanced Paediatric Chiropractor – Quality Practice Framework Last Updated: 18-11-2022

Version: 20221811

⁷ (National Institute for Health and Care Excellence [NICE], 2019)



- Lymphatic system
- Cardio-respiratory system
- Urogenital and reproductive system
- Gastrointestinal system
- Endocrine system
- Dermatological system
- Developmental screening
- Sleep health
- Nutrition and diet
- Psychological and mental health
- 2.2. Knowledge of immune system development and understanding of abnormal immune system presentations across the paediatric age ranges.
- 2.3. Knowledge of feeding and digestive development and abnormal presentations across the paediatric age ranges.
- 2.4. Knowledge of pathological presentations that can mimic disorders of the neuro-musculoskeletal system in neonates, infants and children.
- 2.5. Knowledge of presentations that may modify or preclude chiropractic treatment, relatively and absolutely.
- 2.6. Knowledge of referral pathways and health professions involved in assessment and management of broader health care issues.
- 2.7. Knowledge of aspects around child abuse including:
 - Sexual, physical, and emotional abuse as well as neglect
 - Identification of potential abuse
 - Reporting requirements appropriate for state

3. Paediatric Manual Therapy Techniques and Management

- 3.1. Knowledge of age-appropriate and stage of development appropriate techniques, including technique modification, which include but are not limited to, manipulation, mobilisation, instrument/device use, and soft tissue therapies
- 3.2. Knowledge of best evidence manual therapy techniques for various age ranges and paediatric presentations
- 3.3. Knowledge of manual therapy parameters required to elicit a neurophysiological response and their application across the paediatric age ranges
- 3.4. Understanding relative and absolute contra-indications to manual therapy across the paediatric age ranges
- 3.5. Knowledge of age-appropriate postural assessment along with age-appropriate postural and rehabilitative exercises



- 3.6. Be able to provide age-appropriate nutritional advice and nutritional supplementation
- 3.7. Be able to provide age-appropriate lifestyle and public health advice
- 3.8. Be able to develop an appropriate management plan which may include treatment, referral or co-management
- 3.9. Be able to clearly and accurately communicate any management plan and recommendations to the patient/parent/guardian
- 3.10. Understand the role of other health care providers and referral requirements.

4. Neonate (0-8 Weeks of Age)

The neonatal period is characterized by rapid transition from the in-utero environment to the external environment with rapid adaptation and development of body systems essential for survival and growth. In particular the respiratory, circulatory and digestive systems demonstrate rapid adaptation.

Pathological conditions may present with limited or subtle clinical findings necessitating a high degree of clinical sensitivity and a high level of clinical skills to facilitate early identification and intervention. Detailed understanding of the normal and abnormal presentation of all the neonate body systems is essential for safe and competent involvement in the care of the neonate. There is a high degree of similarity in the presentation of many pathological conditions which require advanced clinical examination skills to permit appropriate management.

Neonates may deteriorate rapidly requiring prompt clinical response and the ability to identify often subtle physiological changes.

4.1. Growth and Development

- 4.1.1.Understand and be able to implement physical growth monitoring including: head circumference, length, weight, and fontanelle size
- 4.1.2. Knowledge of factors which may influence growth and development pertaining to pre-, peri-, and post-natal stages including:
 - Prenatal factors such as maternal age, history of previous pregnancies, sibling number, maternal health state, maternal medication use, diagnostic imaging performed, and health, growth and position of foetus
 - Perinatal factors such as length of gestation, length and duration of labour stages, interventions, medications used, method of delivery, neonatal presentation
 - Postnatal factors such as length, weight, head circumference, APGAR scores, resuscitation requirements, jaundice, length of hospital stay, SCN/NICU stay required and medications used
 - Neonate and maternal diet along with use of supplements
 - Medication and recreational drug use as this relates to the neonate and the mother

Advanced Paediatric Chiropractor – Quality Practice Framework Last Updated: 18-11-2022

Version: 20221811 Page **17** of **30**



4.1.3. Knowledge of normal development including stages of growth and clinical applications of stages of development incorporating gross motor, communication, cognition, emotion, and social skills.

4.2. Neurological Development and Assessment

- 4.2.1. Knowledge of normal neurological development (and associated functional abilities) in neonates; including key variations at critical and/or variable points of development.
- 4.2.2. Knowledge of neurological assessment methods for neonates including:
 - Age-appropriate neurological examinations, including testing for cranial nerves, primitive reflexes, tone, and muscle stretch reflexes.
 - Gross motor testing for neonates
- 4.2.3. Knowledge of presentation and assessment for abnormal movement patterns
- 4.2.4. Knowledge of the implications of assessments as above for clinical management planning and referral.

4.3. Musculoskeletal Development and Assessment

- 4.3.1.Knowledge of normal musculoskeletal development (and associated functional abilities) as well as key variations at critical and/or variable points of development.
- 4.3.2. Knowledge of clinical indicators of structural abnormalities in the body during early development.
- 4.3.3. Knowledge of common accidents, injuries and normal tissue healing timeframes.
- 4.3.4. Knowledge of attachment (latching), sucking, settling, sleeping and feeding issues in neonates including potential musculoskeletal contributing factors.
- 4.3.5. Knowledge of neonatal musculoskeletal conditions and issues, their trajectories and relationship to broader child health and wellbeing.
- 4.3.6. Knowledge of the implications of assessments for clinical management planning, treatment and referral.

4.4. Nutrition of the neonate

- 4.4.1. Understanding normal and abnormal neonate feeding patterns when breast fed and/or bottle fed
- 4.4.2. Knowledge of neonate and maternal issues relating to Breast Feeding whilst supporting breastmilk as the preferred form of nutrition during the neonatal period
- 4.4.3. Knowledge of the various Infant Formulas and their appropriate use in the neonatal period
- 4.4.4.Understand neonate nutritional requirements relating to iron, Vitamin D, Vitamin K, protein and calories
- 4.4.5. Understand maternal nutritional requirements whilst breastfeeding and appropriate management of suspected food allergens.
- 4.4.6.Be able to identify and appropriately manage failure to thrive in the neonate

4.5. Management and Treatment



- 4.5.1.Knowledge of best evidence informed neuro-musculoskeletal interventions for attachment (latching), sucking, settling, sleep, behaviour and/or feeding issues
- 4.5.2. Knowledge of best evidence informed neuro-musculoskeletal interventions, management strategies for the neonatal neuro-musculoskeletal conditions
- 4.5.3. Knowledge of signs of serious illness in the neonate and the appropriate management⁸

4.6. Neonatal non-musculoskeletal conditions

4.6.1. Knowledge of the clinical presentation, examination findings and appropriate management of neonatal disorders involving all body systems

5. Infant (2-12 Months of Age)

The infant period is characterised by rapid development of body systems; in particular gross and fine motor skills, social and language, and transition to independent feeding.

Pathological conditions may present with limited or subtle clinical findings necessitating a high degree of clinical sensitivity and a high level of clinical skills to facilitate early identification and intervention. Detailed understanding of the normal and abnormal presentation of all the infant body systems is essential for safe and competent involvement in the care of the infant. There is a high degree of similarity in the presentation of many pathological conditions which require advanced clinical examination skills to permit appropriate management.

Infants may deteriorate rapidly requiring prompt clinical response and the ability to identify often subtle physiological changes.

5.1. Growth and Development

- 5.1.1.Understand and be able to implement physical growth monitoring including: head circumference, length, weight, and fontanelle size
- 5.1.2.Knowledge of factors which may influence growth and development pertaining to pre-, peri-, and post-natal stages including:
 - Prenatal factors such as maternal age, history of previous pregnancies, sibling number, maternal health state, maternal medication use, diagnostic imaging performed, and health, growth and position of foetus
 - Perinatal factors such as length of gestation, length and duration of labour stages, interventions, medications used, method of delivery, neonatal presentation
 - Postnatal factors such as length, weight, head circumference, APGAR scores, resuscitation requirements, jaundice, length of hospital stay, SCN/NICU stay required and medications used

_

^{8 (}National Institute for Health and Care Excellence [NICE], 2019)



- Infant and maternal diet along with use of supplements
- Medication and recreational drug use as this relates to the infant and the mother
- 5.1.3. Knowledge of normal development including stages of growth and clinical applications of stages of development incorporating gross and fine motor, communication, cognition, emotion, and social skills.
- 5.1.4. Knowledge of normal and abnormal sleep patterns and their appropriate management

5.2. Neurological Development and Assessment

- 5.2.1. Knowledge of normal neurological development (and associated functional abilities) in infants; including key variations at critical and/or variable points of development.
- 5.2.2. Knowledge of neurological assessment methods for infants including:
 - Age-appropriate neurological examinations, including testing for cranial nerves, primitive and postural reflexes, tone, and muscle stretch reflexes.
 - Fine and Gross motor testing for infants
- 5.2.3. Knowledge concerning the presentation and early indications of Autism Spectrum Disorder in infants
- 5.2.4. Knowledge of presentation and assessment for seizure disorders and abnormal movement patterns
- 5.2.5. Knowledge of the implications of assessments as above for clinical management planning and referral.
- 5.2.6. Knowledge of normal and abnormal behaviour and appropriate management

5.3. Musculoskeletal Development and Assessment

- 5.3.1.Knowledge of normal musculoskeletal development (and associated functional abilities) as well as key variations at critical and/or variable points of development.
- 5.3.2. Knowledge of clinical indicators of structural abnormalities in the body during this phase of development.
- 5.3.3. Knowledge of common accidents, injuries and normal tissue healing timeframes.
- 5.3.4. Knowledge of attachment (latching), sucking, settling, sleeping and feeding issues in infants including potential musculoskeletal contributing factors.
- 5.3.5.Knowledge of infant musculoskeletal conditions and issues, their trajectories and relationship to broader child health and wellbeing.
- 5.3.6. Knowledge of the implications of assessments for clinical management planning, treatment and referral.

5.4. Nutrition of the infant

- 5.4.1. Understanding normal and abnormal infant feeding patterns when breast fed and/or bottle fed
- 5.4.2. Knowledge of infant and maternal issues relating to Breast Feeding whilst supporting breastmilk as the preferred form of nutrition prior to 6 months of corrected age
- 5.4.3. Knowledge of the various Infant Formulas and their appropriate use in the neonatal period



- 5.4.4. Knowledge of the appropriate introduction of solids and the ability to recognise and appropriately manage food allergens and intolerances
- 5.4.5. Knowledge of issues relating to the consumption of solids by infants
- 5.4.6.Understand infant nutritional requirements relating to iron, Vitamin D, protein and calories
- 5.4.7.Understand maternal nutritional requirements whilst breastfeeding and appropriate management of suspected food allergens
- 5.4.8.Be able to identify and appropriately manage failure to thrive in the infant

5.5. Management and Treatment

- 5.5.1.Knowledge of best evidence informed neuro-musculoskeletal interventions for attachment (latching), sucking, settling, sleep, behaviour and/or feeding issues
- 5.5.2.Knowledge of best evidence informed neuro-musculoskeletal interventions, management strategies for the infant neuro-musculoskeletal conditions
- 5.5.3. Knowledge of signs of serious illness in the infant and the appropriate management (REF FOR SIGNS OF SERIOUS ILLNESS)

5.6. Infant non-musculoskeletal conditions

5.6.1. Knowledge of the clinical presentation, examination findings and appropriate management of infant disorders involving all body systems

6. Toddler (1-2 years of age) and Pre-schooler (2-5 Years of Age)

The Toddler and Pre-schooler period is characterised by independent movement and exploration of the environment. Language and social skills are undergoing rapid development. There is transition into the education system. There is development of self-awareness. Further development of body systems occurs, in particular gross and fine motor skills. Cognitive development can be more formally assessed.

Pathological conditions may present with limited or subtle clinical findings necessitating a high degree of clinical sensitivity and a high level of clinical skills to facilitate early identification and intervention. Detailed understanding of the normal and abnormal presentation of all the Toddler/Preschooler body systems is essential for safe and competent involvement in the care of this age range. There is a high degree of similarity in the presentation of many pathological conditions which require advanced clinical examination skills to permit appropriate management.

6.1. Growth and Development

- 6.1.1. Understand and be able to implement physical growth monitoring including: head circumference, length, weight, and fontanelle size
- 6.1.2. Knowledge of factors which may influence growth and development pertaining to pre-, peri-, and post-natal stages including:



- Prenatal factors such as maternal age, history of previous pregnancies, sibling number, maternal health state, maternal medication use, diagnostic imaging performed, and health, growth and position of foetus
- Perinatal factors such as length of gestation, length and duration of labour stages, interventions, medications used, method of delivery, neonatal presentation
- Postnatal factors such as length, weight, head circumference, APGAR scores, resuscitation requirements, jaundice, length of hospital stay, SCN/NICU stay required and medications used
- Postnatal and maternal diet along with use of supplements
- Medication and recreational drug use as this relates to the toddler/preschooler and the mother
- 6.1.3.Knowledge of normal development including stages of growth and clinical applications of stages of development incorporating gross and fine motor, communication, cognition, emotion, and social skills.
- 6.1.4. Knowledge of normal and abnormal sleep patterns and their appropriate management

6.2. Neurological Development and Assessment

- 6.2.1. Knowledge of normal neurological development (and associated functional abilities) in toddler/preschooler; including key variations at critical and/or variable points of development.
- 6.2.2. Knowledge of neurological assessment methods for toddler/preschooler including:
 - Age-appropriate neurological examinations, including testing for cranial nerves, primitive and postural reflexes, tone, and muscle stretch reflexes.
 - Fine and Gross motor testing for the toddler/preschooler
 - Cognitive development testing for the toddler/preschooler in particular expressive/receptive language, and social development
- 6.2.3. Knowledge concerning the presentation and early indications of Autism Spectrum Disorder in toddler/preschooler ages
- 6.2.4. Knowledge of presentation and assessment for seizure disorders
- 6.2.5. Knowledge of the implications of assessments as above for clinical management planning and referral
- 6.2.6. Knowledge of normal and abnormal behaviour and appropriate management

6.3. Musculoskeletal Development and Assessment

- 6.3.1.Knowledge of normal musculoskeletal development (and associated functional abilities) as well as key variations at critical and/or variable points of development.
- 6.3.2. Knowledge of clinical indicators of structural abnormalities in the body during this phase of development.
- 6.3.3. Knowledge of common accidents, injuries and normal tissue healing timeframes.



- 6.3.4. Knowledge of settling, sleeping and feeding issues in toddler/preschoolers including potential musculoskeletal contributing factors.
- 6.3.5. Knowledge of toddler/preschooler musculoskeletal conditions and issues, their trajectories and relationship to broader child health and wellbeing.
- 6.3.6. Knowledge of the implications of assessments for clinical management planning, treatment and referral.

6.4. Nutrition of the toddler/preschooler

- 6.4.1. Understanding normal and abnormal toddler/preschooler feeding patterns
- 6.4.2. Knowledge of the various Toddler Formulas and their appropriate use
- 6.4.3. Knowledge of issues relating to food consumption and the ability to recognise and appropriately manage food allergens and intolerances
- 6.4.4. Knowledge of issues relating to diet and best dietary practices along with nutritional requirements relating but not limited to iron, Vitamin D, protein and calories
- 6.4.5.Be able to identify presentations relating to metabolic conditions and obesity and their appropriate management

6.5. Management and Treatment

- 6.5.1. Knowledge of best evidence informed neuro-musculoskeletal interventions for settling, sleep, behaviour and/or feeding issues
- 6.5.2. Knowledge of best evidence informed neuro-musculoskeletal interventions and management strategies for toddler/preschooler neuro-musculoskeletal conditions
- 6.5.3. Knowledge of signs of serious illness in the toddler/preschooler and the appropriate management (REF FOR SIGNS OF SERIOUS ILLNESS)

6.6. Toddler/preschooler non-musculoskeletal conditions

6.6.1. Knowledge of the clinical presentation, examination findings and appropriate management of toddler/preschooler disorders involving all body systems

7. School-aged Child (5-15 Years of Age)

The School-aged Child is characterised by exploration of the environment and independent learning. Language and social skills are continuing to develop. Further development of body systems occurs, fine and gross motor skills reach that of the adult level. Cognitive development can be extensively assessed. Hormonal development typically occurs.

Pathological conditions may present with limited or subtle clinical findings necessitating a high degree of clinical sensitivity and a high level of clinical skills to facilitate early identification and intervention. Detailed understanding of the normal and abnormal presentation of all the School-aged child body systems is essential for safe and competent involvement in the care of this age range. There is a high



degree of similarity in the presentation of many pathological conditions which require advanced clinical examination skills to permit appropriate management.

7.1. Growth and Development

- 7.1.1.Understand and be able to implement physical growth monitoring including: head circumference, height, and weight
- 7.1.2. Knowledge of factors which may influence growth and development pertaining to pre-, peri-, and post-natal stages as described in 6.1.2
- 7.1.3. Knowledge of normal development including stages of growth and clinical applications of stages of development incorporating gross and fine motor, communication, cognition, emotion, and social skills.
- 7.1.4. Knowledge of normal and abnormal endocrine and hormonal development, presentation, assessment and appropriate management
- 7.1.5. Knowledge of normal and abnormal sleep patterns and their appropriate management

7.2. Neurological Development and Assessment

- 7.2.1. Knowledge of normal neurological development (and associated functional abilities) in the School-aged Child; including key variations at critical and/or variable points of development.
- 7.2.2. Knowledge of neurological assessment methods for the School-aged Child including:
 - Age-appropriate neurological examinations, including testing for cranial nerves, primitive and postural reflexes, tone, and muscle stretch reflexes.
 - Fine and Gross motor testing for the School-aged Child
 - Cognitive development testing for the School-aged Child
- 7.2.3. Knowledge of presentation and assessment for learning difficulties and neurobehavioural disorders including but not limited to dyslexia, dyspraxia, anxiety/depression, auditory/visual/sensory processing disorders, Attention Deficit/Hyperactivity Disorder and Autism Spectrum Disorder
- 7.2.4. Knowledge of presentation and assessment for Epilepsy, seizure disorders and abnormal movement patterns
- 7.2.5. Knowledge of presentation and appropriate management of psychological disorders including anxiety, depression, media use and addiction, anorexia/bulimia
- 7.2.6. Knowledge of the implications of assessments as above for clinical management planning and referral
- 7.2.7. Knowledge of normal and abnormal behaviour and appropriate management

7.3. Musculoskeletal Development and Assessment

7.3.1.Knowledge of normal musculoskeletal development (and associated functional abilities) as well as key variations at critical and/or variable points of development.



- 7.3.2. Knowledge of clinical indicators of structural abnormalities in the body during this phase of development.
- 7.3.3. Knowledge of common accidents, injuries and normal tissue healing timeframes.
- 7.3.4. Knowledge of sleeping and eating issues in the School-aged child including potential musculoskeletal contributing factors.
- 7.3.5.Knowledge of School-aged child musculoskeletal conditions and issues, their trajectories and relationship to broader child health and wellbeing.
- 7.3.6.Knowledge of normal spinal curve development, presentation and assessment of abnormal spinal curvatures and their appropriate management
- 7.3.7. Knowledge of the implications of assessments for clinical management planning, treatment and referral.

7.4. Nutrition of the School-aged child

- 7.4.1. Understanding normal and abnormal School-aged child eating patterns
- 7.4.2. Knowledge of issues relating to food consumption (anorexia/bulimia/obesity) and the ability to recognise and appropriately manage food allergens and intolerances
- 7.4.3. Knowledge of issues relating to diet and best dietary practices along with nutritional requirements
- 7.4.4.Be able to identify presentations relating to metabolic conditions and obesity and their appropriate management

7.5. Management and Treatment

- 7.5.1. Knowledge of best evidence informed neuro-musculoskeletal interventions for sleep, behaviour and/or eating issues
- 7.5.2.Knowledge of best evidence informed neuro-musculoskeletal interventions and management strategies for School-aged child neuro-musculoskeletal conditions
- 7.5.3.Knowledge of signs of serious illness in the School-aged child and the appropriate management (REF FOR SIGNS OF SERIOUS ILLNESS)
- 7.5.4. Knowledge of social and mental health care needs in adolescents and indicators of stress, coping or failure to cope; as well as appropriate referral pathways.
- 7.5.5.Knowledge of condition and severity- and age-appropriate lifestyle advice, rehabilitation and exercise protocols that can be incorporated to wherever possible:
 - Reduce the impact of progressive deterioration.
 - Prevent or reduce rate of deconditioning and/or aid comfort.
 - Assist maintenance of function and/or functional improvement, both in the home and in activities of daily living.
- 7.5.6.Knowledge of clinical interventions offered by other health professionals, their use, effectiveness and role within referral and intervention pathways
- 7.6. School-aged child non-musculoskeletal conditions



7.6.1. Knowledge of the clinical presentation, examination findings and appropriate management of School-aged child disorders involving all body systems

8. Adolescent (13-19 Years of Age)

The Adolescent stage is characterised by independent learning and living. Language and social skills are continuing to develop. Cognitive development can be extensively assessed. Hormonal development is occurring, and pubertal changes typically become apparent. This may impact social, emotional and behavioural development.

Pathological conditions may present with limited or subtle clinical findings necessitating a high degree of clinical sensitivity and a high level of clinical skills to facilitate early identification and intervention. Detailed understanding of the normal and abnormal presentation of all the adolescent body systems is essential for safe and competent involvement in the care of this age range. There is a high degree of similarity in the presentation of many pathological conditions which require advanced clinical examination skills to permit appropriate management.

8.1. Growth and Development

- 8.1.1.Understand and be able to implement physical growth monitoring including height and weight
- 8.1.2. Knowledge of factors which may influence growth and development pertaining to pre-, peri-, and post-natal stages as described in 6.1.2
- 8.1.3.Knowledge of normal development including stages of growth and clinical applications of stages of development incorporating gross and fine motor, communication, cognition, emotion, and social skills.
- 8.1.4. Knowledge of normal and abnormal endocrine and hormonal development, presentation, assessment and appropriate management
- 8.1.5. Knowledge of normal and abnormal sleep patterns and their appropriate management

8.2. Neurological Development and Assessment

- 8.2.1. Knowledge of normal neurological development (and associated functional abilities) in the Adolescent; including key variations at critical and/or variable points of development.
- 8.2.2. Knowledge of neurological assessment methods for the Adolescent including:
 - Age-appropriate neurological examinations, including testing for cranial nerves, primitive and postural reflexes, tone, and muscle stretch reflexes.
 - Fine and Gross motor testing for the Adolescent
 - Cognitive development testing for the Adolescent
- 8.2.3. Knowledge of presentation and assessment for learning difficulties and neurobehavioural disorders including but not limited to dyslexia, dyspraxia, anxiety/depression,



- auditory/visual/sensory processing disorders, Attention Deficit/Hyperactivity Disorder and Autism Spectrum Disorder
- 8.2.4. Knowledge of presentation and assessment for Epilepsy, seizure disorders and abnormal movement patterns
- 8.2.5. Knowledge of presentation and appropriate management of psychological disorders including anxiety, depression, media use and addiction, anorexia/bulimia
- 8.2.6. Knowledge of the implications of assessments as above for clinical management planning and referral
- 8.2.7. Knowledge of normal and abnormal behaviour and appropriate management

8.3. Musculoskeletal Development and Assessment

- 8.3.1.Knowledge of normal musculoskeletal development (and associated functional abilities) as well as key variations at critical and/or variable points of development.
- 8.3.2. Knowledge of clinical indicators of structural abnormalities in the body during this phase of development.
- 8.3.3. Knowledge of common accidents, injuries and normal tissue healing timeframes.
- 8.3.4. Knowledge of sleeping and eating issues in the Adolescent including potential musculoskeletal contributing factors.
- 8.3.5. Knowledge of Adolescent musculoskeletal conditions and issues, including rheumatological conditions, their trajectories and relationship to broader child health and wellbeing.
- 8.3.6. Knowledge of normal spinal curve development, presentation and assessment of abnormal spinal curvatures and their appropriate management
- 8.3.7. Knowledge of the implications of assessments for clinical management planning, treatment and referral.

8.4. Nutrition of the Adolescent

- 8.4.1. Understanding normal and abnormal Adolescent eating patterns
- 8.4.2. Knowledge of issues relating to food consumption (anorexia/bulimia/obesity) and the ability to recognise and appropriately manage food allergens and intolerances
- 8.4.3. Knowledge of issues relating to diet and best dietary practices along with nutritional requirements
- 8.4.4.Be able to identify presentations relating to metabolic conditions and obesity and their appropriate management

8.5. Management and Treatment

- 8.5.1. Knowledge of best evidence informed neuro-musculoskeletal interventions for sleep, behaviour and/or eating issues
- 8.5.2. Knowledge of best evidence informed neuro-musculoskeletal interventions and management strategies for Adolescent neuro-musculoskeletal conditions
- 8.5.3. Knowledge of signs of serious illness in the Adolescent and the appropriate management



- 8.5.4. Knowledge of social and mental health care needs in adolescents and indicators of stress, coping or failure to cope; as well as appropriate referral pathways.
- 8.5.5.Knowledge of condition and severity- and age-appropriate lifestyle advice, rehabilitation and exercise protocols that can be incorporated wherever possible:
 - Reduce the impact of progressive deterioration.
 - Prevent or reduce rate of deconditioning and/or aid comfort.
 - Assist maintenance of function and/or functional improvement, both in the home and in activities of daily living.
- 8.5.6.Knowledge of clinical interventions offered by other health professionals, their use, effectiveness and role within referral and intervention pathways

8.6. Adolescent non-musculoskeletal conditions

8.6.1. Knowledge of the clinical presentation, examination findings and appropriate management of Adolescent disorders involving all body systems



Advanced clinical reasoning in practice

Advanced Paediatric Chiropractors have clinical skill in assessing and managing atypical factors in neuro-musculoskeletal development, paediatric pain, or complex and/or deteriorating neuro-musculoskeletal conditions and secondary morbidities in children.⁹

Advanced Paediatric Chiropractors exemplify an ability to undertake problem focused clinical examinations, including detailed regional examinations, incorporating reports, assessments and evidence from other health professionals to inform diagnosis and management planning. Using health information, established tools and measures, these members are adept at assessing physiological stability, secondary morbidity and chronicity risk in normally developing children with atypical movement or coordination, or children with complex and/or deteriorating neuro-musculoskeletal conditions.

Advanced Paediatric Chiropractors demonstrate sound clinical reasoning in the formulation of paediatric management plans, setting realistic, appropriate goals and expectations. They show they can plan to manage atypical movement or coordination in normally developing children, or prevent secondary complications in collaboration with other health professionals for children with complex and/or deteriorating conditions. They aim to improve normal function, quality of life and reduce paediatric pain wherever possible.

Advanced Paediatric Chiropractors exemplify an ability to apply strategies in the evidence base for self-care, environmental support, care in the home and family. Advanced Paediatric Chiropractors can modify therapeutic strategies following changes in health status, condition or complexity of a child and apply clinical reasoning to justify any changes to the broader health care team within a multidisciplinary care model.

Advanced Paediatric Chiropractor – Quality Practice Framework Last Updated: 18-11-2022

⁹ (Australian Government Department of Social Services, 2015)



References within this document

- Australian Chiropractors Association. (2019). Submission to the Safer Care Victoria | Independent Review | Chiropractic spinal care for children under 12 years. https://www.chiro.org.au/wp-content/uploads/2019/08/ACA_Submission_to_SCV_Chiropractic_Review_June_2019.pdf
- Australian Government Department of Health. (2015). *Healthy, Safe and Thriving: National Strategic Framework for Child and Youth Health*. https://webarchive.nla.gov.au/awa/20170309075113/http://www.coaghealthcouncil.gov.au/Publi cations/Reports/ArtMID/514/ArticleID/89/Healthy-Safe-and-Thriving-National-Strategic-Framework-for-Child-and-Youth-Health
- Chiropractic Australia. (2015). *Policy statement by Chiropractic Australia on paediatric care*. https://doi.org/10.1186/1471-2431-13-14[published
- Australian Government Department of Social Services. (2015). *Developmental Milestones and the EYLF and NQS*. https://www.dss.gov.au/our-responsibilities/families-and-children/publications-articles/developmental-milestones-and-the-eylf-and-ngs
- Gellatly, R. M., & Galbraith, K. (2020). Recognition of Advanced Practice Pharmacists in Australia and Beyond: Considerations for Canadian Practitioners. *CJHP*, *73*(3), 225–231.
- Jakimowicz, M., Williams, D., & Stankiewicz, G. (2017). A systematic review of experiences of advanced practice nursing in general practice. *BMC Nursing*, *16*(1). https://doi.org/10.1186/s12912-016-0198-7
- National Institute for Health and Care Excellence [NICE]. (2019). Fever in under 5s: assessment and initial management NICE guideline (NICE Guideline No. 143). www.nice.org.uk/guidance/ng143
- Twenty years of population change | Australian Bureau of Statistics. (2020). https://www.abs.gov.au/articles/twenty-years-population-change#children-aged-0-14-years-