



GUIDELINE

Sleep - 0-5 years

Scope (Staff):	Community health
Scope (Area):	CAHS-CH, WACHS

Child Safe Organisation Statement of Commitment

CAHS commits to being a child safe organisation by applying the National Principles for Child Safe Organisations. This is a commitment to a strong culture supported by robust policies and procedures to reduce the likelihood of harm to children and young people.

This document should be read in conjunction with this [disclaimer](#)

Contents

Aim	2
Risk	2
Key points.....	2
Background	3
Sleep-wake regulation and sleep states	3
Sleep and infant feeding	4
Sleep - 0-12 months.....	4
0-3 months	4
3-6 months	5
6-9 months	5
9-12 months	5
Sleep - 1-3 years.....	5
Sleep - 3-5 years.....	5
Common sleep concerns	6
Sleep disorders of childhood	6
Obstructive sleep apnoea	6
Restless legs syndrome (RLS), Periodic Limb Movement Disorder (PLMD) and Rhythmic Movement Disorder (RMD)	6
Parasomnias	7

Care planning for sleep problems and sleep disorders	7
Assessment of sleep problems and sleep disorders.....	7
Attachment, separation and crying	8
Controlled crying	9
Settling strategies for infants – 0-12 months.....	9
Sleep hygiene principles – 1- 5 years	10
Tools	11
Process	13

Aim

To provide information on early childhood sleep and guidance for staff to undertake holistic assessments and care planning for parents who have expressed concerns about their children's sleeping behaviours.

Risk

Inadequate understanding of normal sleep in children may lead to inappropriate responses to sleep variations. This may lead to negative consequences for their developmental, emotional and psychological wellbeing of the child and their family.

Key points

- Healthy, full-term newborns do not have the biological processes to support a predictable sleep-wake pattern. They sleep in short cycles and wake frequently throughout the day and night to feed
- Young babies display a wide variation in sleep patterns which may vary from one baby to the next, and from day to day for the same baby. Sensitive parenting and attentiveness to cues are an important driver of emotional, social and mental development
- Sleep is a process which matures in line with biological, mental, physical, psychosocial and emotional development over the first 5 years of life. The greatest changes to sleep usually occur within the first 12 months of life. As children age, sleep patterns generally become more predictable.
- Children around the age of three years have a good sense of self and are able to understand and cope with some parental separation, whilst developing skills to self-settle after waking.
- Parental concern regarding sleep and temporary sleep disturbances are common in young children. Variations in sleep patterns need not be labelled a disorder unless associated with medical symptoms or consistent concern to parents
- Acute, chronic illness and sleep disorders can occur in children, with sleep disorders most commonly occurring in children over the age of one. It is not within the nurse's scope of practice to evaluate or diagnose a sleep disorder. Families should be referred to a medical professional for full assessment
- It is within the nurse's role to educate and empower families to experiment with a range of approaches using evidence-informed, strengths-based, child and family-centred principles.

Background

Sleep is an essential physiological function for children's health. Inadequate sleep is associated with adverse physical and psychological health outcomes e.g. obesity, impaired growth, emotional regulation and increased risk of injury.¹⁻³

Sleep patterns differ greatly between individuals and are determined by the interaction between age, developmental milestones; ecological, biological, lifestyle, cultural and environmental factors.⁴ Recommended durations for sleep in infants and children are illustrated in fig 1.

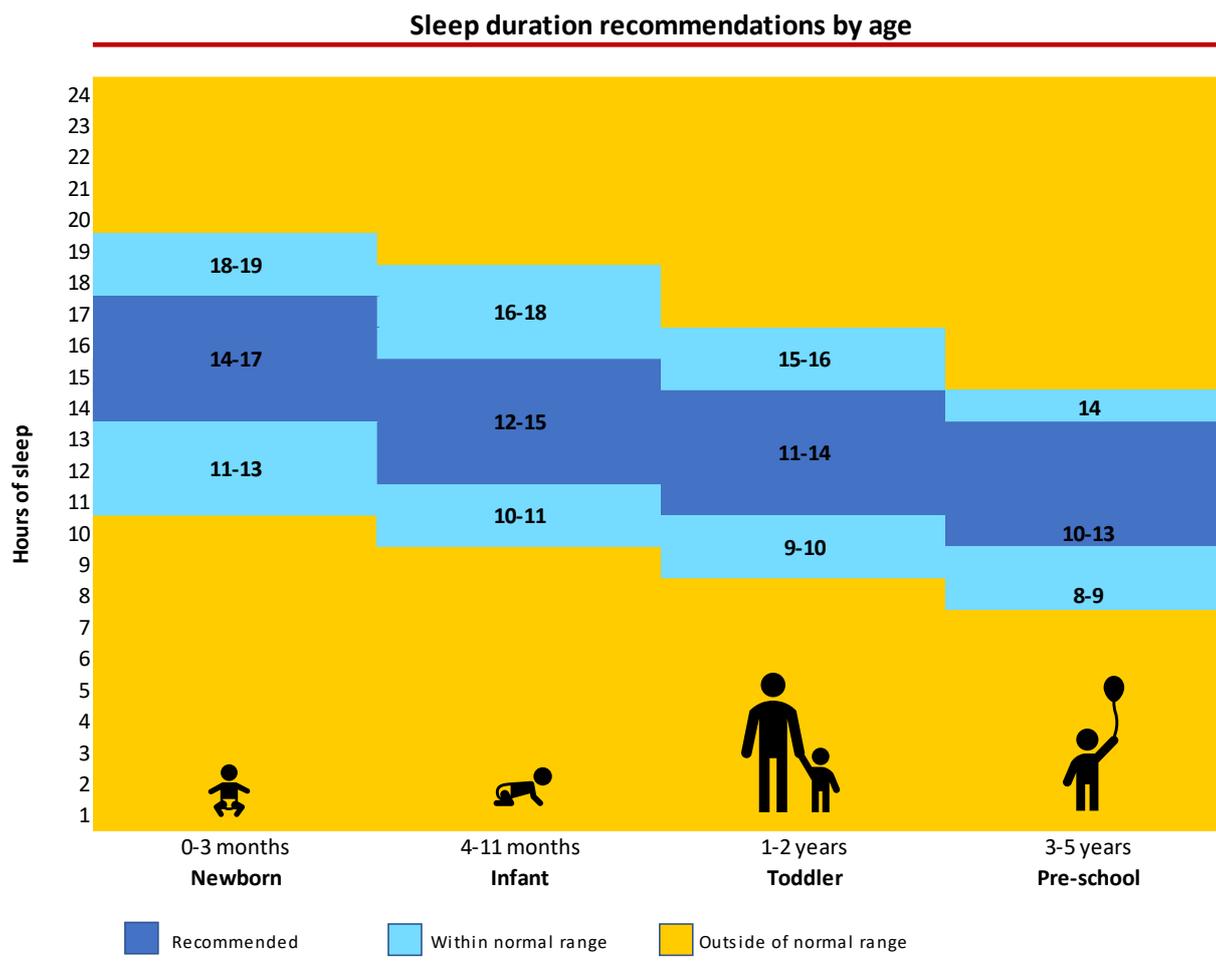


Fig 1. Adapted from:

5. Shalini Paruthi LJB, Carolyn D'Ambrosio, Wendy A. Hall, Suresh Kotagal, Robin M. Lloyd, Bath A. Malow, Kiran Maksi, Cynthis Nichols, Stuart F. Quan, Carol L. Rosen, Matthew M. Troester, Marrill S. Wise. Recommended amount of sleep for paediatric populations: A consensus statement of the American Academy of Sleep Medicine. *Journal of Clinical Sleep Medicine*. 2016;12(6):785-6.

18. Claudia C. Dias BF, Magda Rocha, Tiffany Field. Reference values and changes in infant sleep-wake behaviour during the first 12 months of life: a systematic review. *Journal of sleep research*. 2018;27.

Sleep-wake regulation and sleep states

Regulation of our sleep-wake pattern is determined by circadian and homeostatic processes.⁵ The circadian rhythm ('biological time clock') is located within the suprachiasmatic nucleus (SCN)

of the hypothalamus.⁵ This directs the timing and duration of sleep-wake patterns and is influenced by light.⁵ During the day, light exposure causes the body clock to send signals that generate alertness.⁵ As night falls the biological clock initiates the production of the hormone melatonin which promotes sleep.⁵

Independent of the circadian rhythm is the homeostatic process which regulates the length and depth of sleep, in accordance with an individual's previous sleep/wake period and individual needs.⁵

Sleep periods comprise of cycles of rapid-eye movement (REM) and non-REM (NREM) sleep.⁵ REM sleep is important for development and memory formation and is where dreams and nightmares can occur.^{5,6} From around age five, sleep cycles last approximately 90 minutes, which is that of an adult.⁵

From infancy to age five, central nervous system maturation results in changes to sleep physiology.⁵ For example:

- A reduction in total sleep duration over 24 hours
- A reduction in total REM sleep
- Increased ability to sleep in longer blocks
- Increase in NRM/REM sleep cycle length
- Consolidation of night-time sleep

These changes bring about a gradual shift towards more predictable sleep patterns over the first five years of life.⁵

Sleep and infant feeding

Although there is widespread parental perception that infant formula and solid food promotes periods of longer sleep, this is not supported by evidence.^{7,8} In early infancy, frequent feeds are necessary due to small stomach size and rapid brain growth.⁹ Frequent waking to feed throughout the day and night is biologically normal and promotes breastmilk supply.⁹ Breastmilk contains various bioactive components e.g. melatonin, cortisol, cholecystokinin, which may facilitate sleep in babies and children.¹⁰

Sleep - 0-12 months

0-3 months

In the days after birth, neural mechanisms enabling REM and NREM sleep and circadian rhythm are immature.¹¹ The sleep/wake pattern of newborns is characterised by multiple, short sleep periods throughout the day and night.⁵ Two main sleep types can be identified in the neonate: *active sleep* (similar to REM sleep) and *quiet sleep* (similar to NREM sleep).¹² During 'active sleep' an infant may make small jerking movements of the limbs, the eyes may move around while closed, breathing may speed up and suckling/vocalisations may be observed.⁵ As babies get older these movements reduce.⁵ Newborns have one stage of NREM sleep, also known as 'quiet' sleep. In this stage a baby is relatively still and does not move around.

Newborns enter sleep cycles via active sleep which last for 45-60 minutes.⁵ The neonate may wake after 1-2 sleep cycles, every 1-3 hours.⁵ Newborn sleep is influenced by hunger-satiety rather than light and dark.⁵ High metabolic demand, small stomach size and rapid brain growth drives frequent waking for feeds throughout the day and night.⁵

Circadian rhythms, melatonin release and REM and NREM sleep patterns begin to emerge at around 4-6 weeks of age. This results in increased response to light-dark cues and the ability in some infants to sleep for longer stretches from around 8 weeks of age.^{5 13}

3-6 months

At around 3 months, maturation of circadian rhythms brings changes in the length and timing of sleep.¹³ Increased response to light-dark cues results in longer awake periods during the day and longer sleep periods at night.⁵ Classic REM and NREM sleep can start to be observed.⁵ Some infants may achieve blocks of up to 6-8 hours of sleep during the night although the majority still wake overnight.⁴ Night-waking for feeds is still necessary and normal for many infants aged 3-6 months.⁵

At this age, most babies sleep for between 12 and 15 hours in a 24-hour period.⁵ A pattern of 2-3 daytime sleeps of up to two hours each may begin to emerge.⁴

6-9 months

Continuing development may result in increased predictability in sleep-wake patterns.⁴ Some infants will begin to sleep for 10-12 hours during the night with an additional 2-4 hours of sleep during the daytime.¹¹ Physical, emotional and social development may result in changes to previous sleep patterns, including increased night-time waking. For example, learning a new skill (such as rolling or crawling, or the emergence of object permanence and separation anxiety) leading to increased attachment behaviours at sleep times.¹⁴

9-12 months

By the time most infants are 12 months old, they may be sleeping for 11-14 hours in a 24-hour period.⁴ Most babies between 9 and 12 months will be having their longest sleep at night.⁴ However, many babies aged between 9 and 12 months still wake frequently at night and may need help to settle back to sleep.⁹ Many infants aged between 9 and 12 months will wake during the night to feed.⁹ Continuing development of gross motor, social and cognitive skills may interrupt sleep patterns, for example pulling-up, walking and separation anxiety.¹⁴

Sleep - 1-3 years

Most toddlers require around 11-14 hours of sleep in 24 hours.^{15, 16} This may consist of 10-12 hours at night and 1 day sleep of 1-2 hours.^{15, 16} Night-waking in toddlers is common and they may require parental support to return to sleep.¹⁷ As toddlers approach 3 years of age, they may no longer sleep during the day.¹⁵ Increasing independence and motor and social development may result in alterations to sleep patterns, such as trouble falling asleep, sleeping through the night or calling out after bedtime.⁶ Starting day-care may lead to additional daytime stimulation.⁵ This is a particularly important time for children to have adequate sleep, regular bedtimes and a consistent bedtime routine.¹⁸ There may be an emergence of nightmares or night terrors.⁶ (refer to [sleep disorders of childhood](#))

Sleep - 3-5 years

Children aged 3-5 require approximately 10-13 hours of sleep in 24 hours, however 8-14 hours may be normal.¹⁹ They may also have a period of daytime sleep, rest or quiet activity but this becomes less likely towards age 5.⁵ Daytime sleep may be influenced by the onset of formal schooling.⁵ Additionally, starting formal schooling/day-care environment may result in an increased need for sleep or changes to usual sleeping patterns.²⁰ There is likely to be increased predictability around sleep patterns as they have a good sense of self, are able to understand and

cope with some parental separation and have developed skills to settle after waking.⁵ There may be an emergence of nightmares or night terrors⁶ (refer to [sleep disorders of childhood](#))

Common sleep concerns

Although differences in sleep can be normal and expected, parents commonly report sleep concerns. It is estimated that as many as 38% of Australian parents report problems with sleep at some time during early childhood.²¹ Culture, parental expectations, temperament of the child, lifestyle, family dynamics and parental health issues can influence sleep patterns.^{22 23 24} Sleep issues in young children often occur at times of change, and developmental transitions which require additional parental support. These sleep issues may be assisted by using basic [sleep hygiene principles](#).⁶

Frequent acute and chronic illness during infancy and early childhood may contribute to temporary disturbances in sleep⁶ For example, eczema, food allergy/intolerance, gastroesophageal reflux/GORD, respiratory tract/ear infections.⁶ There is a relationship between neurocognitive disorders e.g.: ADHD and autism and poor sleep.⁶ These issues should be considered when assisting families with sleep.

Sleep disorders of childhood

Obstructive sleep apnoea

Obstructive sleep apnoea is common in children with adenotonsillar hypertrophy or in children of any age with obesity.⁶ Obstructive sleep apnoea can occur in infancy but is most common in children between 2 and 8 years of age.⁶ It is often underdiagnosed and may be responsible for failure to thrive, behavioural problems and apparent life threatening events. It is characterised by snoring or other sounds, such as snorting or gasping, paradoxical breathing (out of phase movement of the chest and abdomen).⁶ Daytime symptoms may include nasal obstruction, mouth breathing, inattentiveness, daytime hyperactivity, sleepiness or irritability.⁶

Restless legs syndrome (RLS), Periodic Limb Movement Disorder (PLMD) and Rhythmic Movement Disorder (RMD)

Restless leg syndrome (RLS) is a common neurological condition characterised by an unpleasant sensation or pain deep in the legs, commonly occurring during rest in the evening or night-time.²⁵ It can be present in infants and very young children, however can remain unrecognised due to a shortage of language skills.²⁵ Its aetiology is unclear, however genetics, dopaminergic dysfunction and low iron storage have been shown to play a role.²⁵ Major symptoms include an urge to move the legs and include a creepy-crawly feeling, tingling or burning, throbbing or aching pain and jerky movements of the legs.²⁵ There is a higher incidence of restless leg syndrome in children with ADHD.²⁵

Periodic Limb Movement Disorder (PLMD) is characterised by episodes of repetitive limb movements during sleep. It usually involves extension of the great toe and partial flexion of the ankle, knee or hip.⁶ There is a significant overlap between RLS and PLMD.⁶ The aetiology of both RLS and PLMD is unclear, however genetics, dopaminergic dysfunction and low iron storage have been shown to play a role.²⁵

Rhythmic Movement Disorder (RMD) is characterised by rhythmic movements at sleep onset.⁶ As such movements during sleep onset are common in infants and toddlers, it is only termed a disorder, where there is associated self-injury or interference with sleep or daytime function.⁶

Parasomnias

Parasomnias are episodic behaviours that disrupt sleep and are common in pre-school and school aged children, usually resolving over the first decade of life.⁶ They include confusional arousals, sleep walking and sleep terrors and occur during NREM sleep.⁶ Parasomnias occur when a child is partially asleep. They are awake enough to scream, moan or move about but not fully alert. Consoling rarely works and children do not remember the incident the next day. These events are distressing for carers but are rarely linked to psychological or physical harm. Overtiredness and lack of sleep can make parasomnias worse.

Confusional arousals are most commonly reported in toddlers and usually occur within 2-3 hours of sleep onset, or attempted awakening from sleep in the morning and during the night.⁶ The child will typically sit up in bed and appear inconsolable, whimpering, crying or moaning. They remain inconsolable despite attempts at comfort.⁶ The episodes may last for 5-30 minutes and the child will have no recollection of the episode the following morning.⁶

Night terrors typically occur between age 4 and 12 years of age.⁶ The child may awaken during the first 1/3 of night-time sleep with a loud scream, have tachycardia, a flushed face and sweating and may jump out of bed.⁶ They may become more agitated at the parent/caregiver's efforts at calming.⁶

Care planning for sleep problems and sleep disorders

Between 25-33% of parents seek clinician guidance regarding behavioural sleep problems in children.²¹ Despite this, there is limited evidence that behavioural sleep interventions are effective, particularly in infants aged <6 months.^{26, 27} There is an association between parental knowledge of normal sleep behaviour and consistent bedtime routines and earlier wake and bedtimes. This indicates that knowledge of normal behaviours may lead to reduced parental perception of sleep issues.²⁴ As such, education of normal sleep behaviours may increase parental confidence and autonomy.²⁴

Validation of parental concerns using a child and family-centred approach is important in care planning for sleep issues. Sleep issues can have negative consequences for a family. A strong correlation between maternally-reported infant sleep issues and post-natal depression has been found.²⁸ Community health nurses are well placed to assist parents with understanding their child's sleep and to identify any difficulties that may impact on a parent's capacity to respond to their child. Nurses are encouraged to be aware of the boundaries of their professional practice and the availability of local resources for interventions or referrals

Assessment of sleep problems and sleep disorders

A holistic assessment of sleep should be conducted using a child and family-centred approach. This could include the use of a sleep diary to determine sleep quantity and sleep-wake patterns.⁶ A holistic assessment should consider:

- Emotional and physical health of parents and children
- Child parent/caregiver attachment
- Child development
- Environmental and lifestyle factors
- Support networks

Holistic questions could include:

- How do you feel about your child's sleep?
- How do you feel the experience is for your child when they are struggling with sleep?
- What do you think your child needs or what your child might be telling you?
- In what ways is your child's sleep impacting on you/your family?
- What is your biggest concern regarding your child's sleep?
- What strategies have you tried and how did that feel for you?
- Are there any illnesses which could be impacting your child's sleep?

In children aged >2 years of age, the BEARS acronym may be useful to prompt specific questions about sleep ⁶. For example:

B = Bedtime problems

Suggested question: Does your child have any problems going to bed? Falling asleep? Are there any abnormal movements or behaviours when falling asleep?

E = Excessive daytime sleepiness

Suggested question: Does your child seem overtired or sleep a lot during the day? Does he/she still take naps?

A = Awakenings during the night

Suggested question: Does your child wake up a lot at night? Are there any abnormal movements of behaviours during sleep?

R = Regularity and duration of sleep

Suggested question: Does your child have a regular bedtime and wake time?

S = Sleep disordered breathing

Suggested question: Does your child snore a lot or have difficulty breathing at night?

Attachment, separation and crying

Infants require parents to be sensitive to their needs and cues, in order to promote secure attachment and emotional wellbeing. When parents respond sensitively and promptly, children learn to settle as they become confident that their needs for emotional comfort will be met by their parents.²⁹ When a child's crying does not reduce with parental support and parents are concerned or unable to soothe their child, a medical assessment may be required to determine a possible cause.

Controlled crying

Controlled crying is not supported by Child and Adolescent Health Service and WA Country Health Service

Controlled crying or controlled comforting is often associated with leaving children alone crying, for incremental periods of time before parents re-enter the room and respond to their child. Other sleep training techniques include 'crying it out', 'extinction crying', 'hands-off settling', or 'graduated extinction', where children are left to cry until they fall asleep. The premise of these techniques is to teach infants and children to settle themselves to sleep. These techniques do not meet the child's needs for optimal emotional and psychological wellbeing and may have long term consequences relating to secure attachment.^{29, 30} These techniques may also have an effect of teaching children not to seek out or expect parents to provide comfort and problem solving support.²⁹

Settling strategies for infants – 0-12 months

- Parents may find it useful to offer a predictable pattern of events around bedtime that are appropriate to the child's age. These patterns of events should also promote attachment and be flexible enough to be used in different settings
- Prepare a safe sleep environment
- Recognise and respond to early tired signs. Parents are encouraged to support their baby into sleep in ways which are suitable to them
- Some crying is to be expected when making changes to settling strategies. Parents can be encouraged to listen to their baby's cues and respond sensitively
- Parents are encouraged to observe their child's behaviour in response to these 'changes' (strategies) and then plan how they will continue to respond to their child.

Newborn infants 0-3 months require parents help to settle to sleep. This may include:

- Cuddling the infant until they are settled, drowsy and/or asleep (soothing in arms)³¹
- Using soft 'shh' sounds with gentle rhythmic patting, rocking or stroking
- Singing
- Safe wrapping³¹

The repetition of soothing sounds and actions may occur in the parents' arms and/or once the infant has been placed supine in the bassinet or cot. Infants may need assistance to resettle, if only one sleep cycle has been achieved.

Infants 3-12 months benefit from a consistent period of 'winding down' before going to sleep which may include:

- Bathing
- Reading or telling a quiet story, singing a song, giving cuddles, using phrases that message sleep time, or giving a goodnight kiss
- Use of white noise
- Place infants supine in the cot 'awake and calm' or alternatively in a 'drowsy state'
- Comfort infants with gentle 'shh' sounds with gentle rhythmic patting, rocking, or stroking (hands on settling)³¹ until they are calm, drowsy or asleep.

If infants become or stay distressed, cuddle until they are calm, drowsy or asleep.

Sleep hygiene principles – 1- 5 years

There is reasonable evidence to support the use of basic sleep hygiene principles to improve the duration of total sleep, sleep onset times and night-waking.^{18,26} These may include adjustments to the sleep environment, predictability and routine.^{18,26} The child's age and stage of development should be considered when deciding whether the use of sleep hygiene principles is appropriate. Blue light from televisions, computer screens, phones and tablets might suppress melatonin levels and provide excessive stimulation, thus delaying sleep onset.⁶ As such, screen time should be avoided in the 1-2 hours preceding sleep times.³² Additionally, screen time is not recommended for children under the age of 2 years.³²

Sleep hygiene practices understood to benefit total sleep duration, onset time and reduce number of night-wakings in children aged 1-3 years are as follows:⁶

- Consistent sleep-time routines
 - A predictable bedtime and bedtime routine
 - Bedtime and wakeup times consistent throughout the week, including weekends. Children are less likely to have disrupted sleep patterns with a less than 1-hour difference in bedtimes and waketimes from one day to another
- A quiet sleep environment with exposure to the natural light of night and day
- Appropriate napping. Napping schedules should consider:
 - 24-hour sleep needs
 - Proximity to bedtime
 - Spacing between sleep periods, so that the child is adequately tired prior to napping
- Physical activity, socialisation and play/sensory experiences during the day which include outdoor play and exposure to natural daylight
- Quiet, non-stimulating activities before sleep-time
 - Avoid high energy activities, such as rough play in the hour before sleep times
- Avoidance of television in the hour preceding bedtime
- Comfortable room temperature (approximately 18 degrees celsius)
- Sleep strategies which encourage the child to go to sleep on their own
- Ensuring the child is not hungry or too full prior to bedtime.

It is common for toddlers to get out of bed, call out, or use stalling behaviours at bedtime due to desire for parental proximity and reassurance around bedtimes. Responding may not be a problem for some families. If the parent responds each time and it is problematic for the family, the parent/caregiver can try the following strategies:

- Determine the reason for the calling out eg: toilet, thirst, parental reassurance, support to wind-down
 - Young children may need reminders of elements to settle to sleep eg: 'lie down', 'stay still and quiet', 'close your eyes'

- A consistent bedtime routine
 - Consider parental/caregiver presence during bedtime and whether it is acceptable for this to be altered – increased attention from parents in response to stalling behaviours can inadvertently promote the behaviour
 - Consider the presence of siblings or other environmental disruptions
- Respond verbally with a phrase such as ‘It’s time to sleep now, please stay in your bed’, then return the child calmly to bed. Repeat this as many times as is necessary
- Provide the child with positive feedback and praise when they are quiet and provide reassurance that they are never far away during sleep time

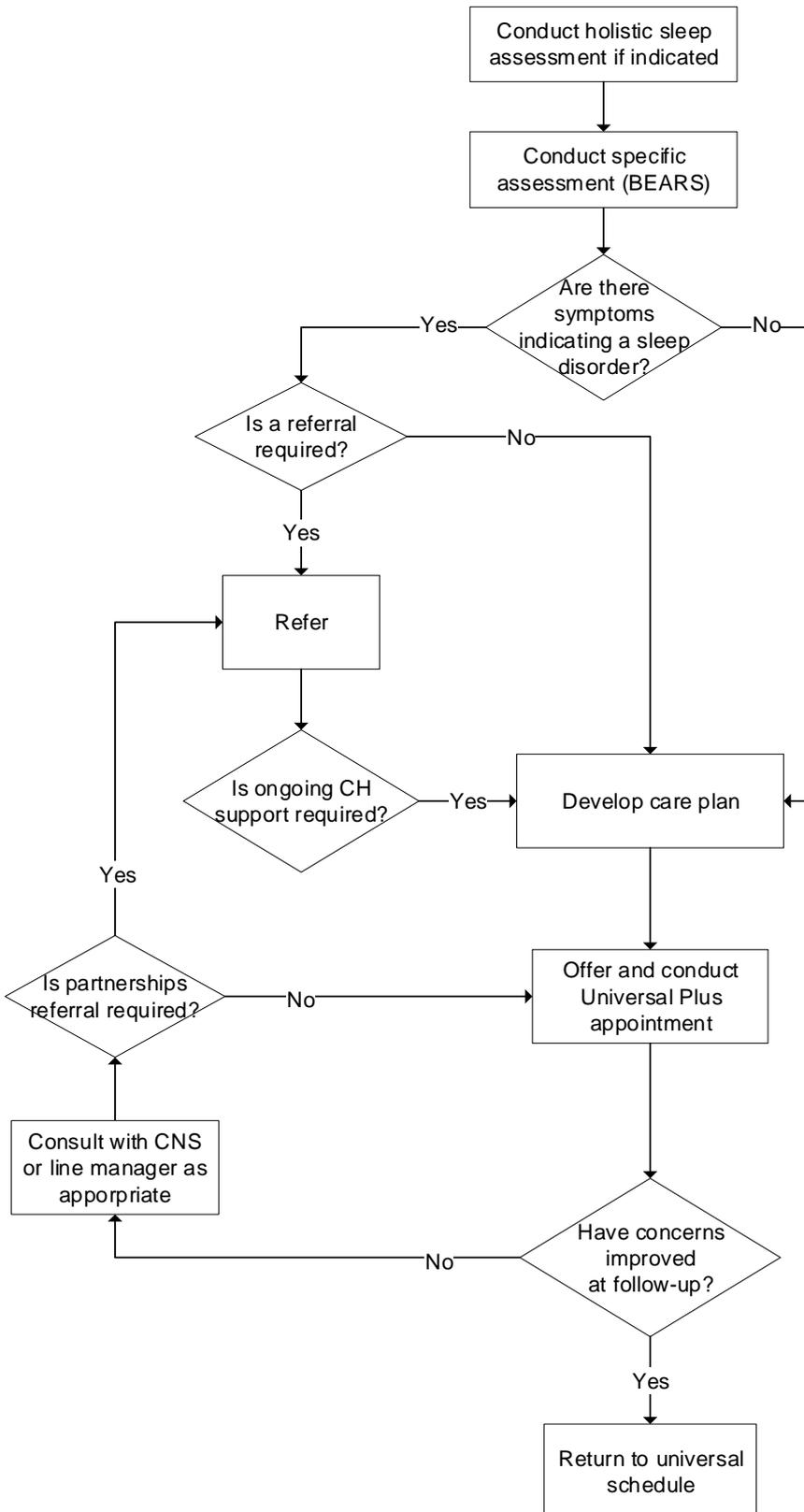
In addition (for children aged 3-5 years):

- Avoidance of screen time in the hour prior to bedtime
 - Screens should be kept out of the bedroom environment
- Consistent bedtime
- Consistent bedtime routine
- A quiet sleep environment with exposure to the natural light of night and day
- Avoidance of electronic devices eg: mobile phones, tablets or laptop computers in bedrooms during sleep times.

Tools

- Sleep diary (CHS733)
- My Care Plan (CHS825)

Sleep flowchart



Process

Steps	Additional Information
<p>Anticipatory guidance – Universal</p> <p>0-12 months</p> <p>Provide parents with information and resources on:</p> <ul style="list-style-type: none"> • Age appropriate feeding, sleeping and wakeful patterns to ensure realistic expectations • Secure attachment and sensitive parenting • Breastfeeding, infant formula feeding and nutrition • Safe sleeping key messages • Responding appropriately to tired cues when the baby is adequately sleepy. These may include: <ul style="list-style-type: none"> ○ Arching back ○ Clenched fists ○ Clumsiness ○ Crying ○ Frowning ○ Jerky movements or startling ○ Gaze aversion or difficulties with focussing ○ Grizzling ○ Rubbing eyes or ears ○ Turning head away ○ Sucking fingers as a way of self-soothing to sleep ○ Yawning <p>1-3 years</p> <p>Provide parents with information and resources on:</p> <ul style="list-style-type: none"> • Expected sleeping patterns and signs of adequate sleep (bedtimes, wake times, day naps) • Secure attachment and sensitive parenting 	<p>0-6 months</p> <p>Parents can be provided with:</p> <ul style="list-style-type: none"> • ‘Your New Baby’ magazines (0-4 months & 4-12 months) • Information regarding ‘Early Parenting Groups’ <p>6-12 months</p> <p>Parents can be provided with:</p> <ul style="list-style-type: none"> • ‘Your New Baby’ magazines (0-4 months & 4-12 months) • Information regarding Universal Plus ‘Let’s Sleep’ groups <p>For additional information on safe sleep, refer to the <i>Universal contact schedules (0-14 days, 8 weeks and 4 months)</i></p>

<ul style="list-style-type: none"> • Emerging independence, tantrums and calling out/getting out of bed • Importance of predictable bedtime routines • Screen time <p>3-5 years</p> <p>Provide parents with information and resources on:</p> <ul style="list-style-type: none"> • Secure attachment and sensitive parenting • Expected sleeping patterns and signs of adequate sleep (bedtime, waketime, day naps) • Importance of consistent bedtime routines • Screen time 	
<p>Assessment (for parent-identified sleep issues/suspected sleep disorders)</p> <p>0-12 months</p> <ul style="list-style-type: none"> • Consider asking the parent/caregiver to use the sleep diary to assess sleep/wake/feeding patterns • Consider enquiring about physical activity, play/sensory and social experiences during the day • Conduct a growth and feeding assessment if feed/sleep/wake patterns are outside of normal range • Consider asking holistic sleep questions • Consider any symptoms indicative of a sleep disorder or illness which may be impacting sleep e.g.: eczema, GERD, food allergy • Consider the impact of the sleep problem on the family’s mental health <p>1-5 years</p> <ul style="list-style-type: none"> • Consider asking the parent/caregiver to use the sleep diary to assess sleep/wake patterns 	<p>For additional information, refer to the <i>Breastfeeding deviation from normal</i> protocol and the <i>Breastfeeding Assessment Guide</i>.</p> <p>Refer to sleep diary</p> <p>Refer to the holistic sleep questions</p> <p>Refer to the BEARS questions (in children aged 2+)</p> <p>For additional information, refer to the <i>Perinatal and Infant Mental Health Guideline</i></p>

<ul style="list-style-type: none"> • Conduct a growth and feeding assessment if feed/sleep/wake patterns are outside of normal range • Consider enquiring about physical activity, play/sensory and social experiences during the day • Consider asking holistic sleep questions • Consider using BEARS questions • Consider any symptoms indicative of a sleep disorder, or an illness which may be impacting sleep e.g.: Excessive/repetitive limb movements during sleep, eczema, food allergy, GERD, Autism/ADHD • Consider the impact of the sleep problem on the family's mental health 	
<p>Intervention strategies – Universal Plus</p> <ul style="list-style-type: none"> • Develop 'My Care Plan' (CHS825) in partnership with the parent/carer to ensure shared understanding of concerns and plan. The 'My Care Plan' will outline strategies for the client to implement <ul style="list-style-type: none"> ○ Give one copy to the client and retain a copy in the client record 	<p>0-12 months</p> <p>Use strategies from ‘settling strategies for newborns 0-12 months’</p> <p>1-5 years</p> <p>Use relevant strategies from ‘sleep hygiene principles 1-5 years’</p>
<p>Referrals</p> <ul style="list-style-type: none"> • A referral to the GP may be required where there is evidence of sleep disorder symptoms or an acute or chronic illness which may be impacting sleep • Complete relevant clinical handover documentation 	<p>Provide clients with the following community service information, as required:</p> <ul style="list-style-type: none"> • Raising Children Network raisingchildren.net.au • Australian Breastfeeding Association: website and telephone Helpline (24 hours every day) 1800 686 268. • Emergency helpline numbers including: <ul style="list-style-type: none"> • Crisis Care – (08) 9223 1111 or 1800 199 008 • Beyond Blue – 1300 224 636

References

1. Matricciani L, Paquet C, Galland B, Short M, Olds T. Children's sleep and health: A meta-review. *Sleep Medicine Reviews*. 2019;46:136-50.
2. Miller MA, Kruisbrink M, Wallace J, Ji C, Cappuccio FP. Sleep duration and incidence of obesity in infants, children, and adolescents: a systematic review and meta-analysis of prospective studies. *SLEEP*. 2018;41(4):1-19.
3. Chaput J-P, Gray CE, Poitras VJ, Carson V, Gruber R, Birken CS, et al. Systematic review of the relationships between sleep duration and health indicators in the early years (0-4 years). *BMC Public Health*. 2017;17:92-107.
4. Dias CC, Figueirido CC, Rocha M, Field T. Reference values and changes in infant sleep-wake behaviour during the first 12 months of life: a systematic review. *Journal of Sleep Research*. 2018;27.
5. McLaughlin-Crabtree V, Williams NA. Normal sleep in children and adolescents. *Child and Adolescent Psychiatric Clinics of North America*. 2009;18(4):799-811.
6. Wise MS, Glaze DG. Assessment of sleep disorders in children: Wolters Kluwer; 2021 [Available from: https://www-uptodate-com.pklibresources.health.wa.gov.au/contents/assessment-of-sleep-disorders-in-children?search=childhood%20sleep%20problems&source=search_result&selectedTitle=1~150&usage_type=default&display_rank=1].
7. Rudzik AE, Ball HL. Exploring maternal perceptions of infant sleep and feeding method among mothers in the United Kingdom: A qualitative focus group study. *Maternal and Child Health Journal*. 2016;20(1):33-40.
8. Fu X, Lovell AL, Braakhuis AJ, Mithen RF, Wall CR. Type of milk feeding and introduction to complementary foods in relation to infant sleep: A systematic review. *Nutrients*. 2021;13:1-23.
9. Brown A, Harries V. Infant sleep and night feeding patterns during later infancy: Association with breastfeeding frequency, daytime complementary food intake and infant weight. *Breastfeeding Medicine*. 2015;10:246-52.
10. Italianer MF, Naninck EFG, Roelants JA, van der Horst GTJ, Reiss IKM, van Goudoever JB, et al. Circadian variation in human milk composition, a systematic review. *Nutrients*. 2020;12:1-16.
11. Price AM, Brown JE, Bittman M, Wake M, Quach J, Hiscock H. Children's sleep patterns from 0-9 years: Australian population longitudinal study. *Archives of Disease in Childhood*. 2013;99:119-25.
12. Dereymaeker A, Pillay K, Vervisch J, De Vos M, Van Heffel S, Jansen K, et al. Review of sleep-EEG in preterm and term neonates. *Early Human Development*. 2017;113:87-103.
13. Liu A. Sleep training. *Pediatric Annals*. 2020;49:101-5.
14. Scher A, Cohen D. Sleep as a mirror of developmental transitions in infancy: The case of crawling. *Monographs of the Society for Research in Child Development*. 2016;80:70-88.
15. Galland BC, Taylor BJ, Elder DE, Herbison P. Normal sleep patterns in infants and children: A systematic review of observational studies. *Sleep medicine reviews*. 2012(16):213-22.
16. Mindell JA, Leichman ES, Composto J, Lee C, Bhullar B, Walters RM. Development of infant and toddler sleep patterns: real-world data from a mobile application. *Journal of Sleep Research*. 2016;25:508-16.
17. Paavonen JE, Saarenmaa-heikkila O, Morales-Munoz I, Virta M, Hakala Niina, Polkki P, et al. Normal sleep development in infants: findings from two large birth cohorts. *Sleep Medicine*. 2020;69:145-54.
18. Hall WA, Nethery E. What does sleep hygiene have to offer children's sleep problems? *Paediatric Respiratory Reviews*. 2019;31:64-74.
19. Paruthi S, Brooks LJ, D'Ambrosio C, Hall WA, Kotagal S, Lloyd RM, et al. Recommended amount of sleep for paediatric populations: A consensus statement of the American Academy of Sleep Medicine. *Journal of Clinical Sleep Medicine*. 2016;12(6):785-6.
20. Carter JC, Wrede JE. Overview of sleep and sleep disorders in infancy and childhood. *Paediatric annals*. 2017;46:e133-e8.
21. Ball HL, Douglas PS, Kulasimgha K, Wittingham K, Hill P. The Possums infant sleep program: Parents' perspectives on a novel parent-infant sleep intervention in Australia. *Sleep Health*. 2018;4:519-26.
22. Ball HL, Taylor CE, Thomas V, Douglas PS, SBY working group. Supporting parents who are worried about their newborn's sleep. *British Medical Journal*. 2013.

23. Jeon M, Dimitriou D, Halstead EJ. A Systematic review on cross-cultural comparative studies of sleep in young populations: The roles of cultural factors. *Environmental Research and Public Health*. 2021;18(2005).
24. McDowall PS, Elder DE, Campbell AJ. Relationship between parent knowledge of child sleep, and child sleep practices and problems: A pilot study in a children's hospital cohort. *Journal of Paediatrics and Child Health*. 2017;53:788-93.
25. Tilmer J, Tilmer K, Norregaard O, Ostergaard JR. Early-childhood onset restless legs syndrome: symptoms and effect of oral iron treatment. *Acta Paediatrica*. 2013;102:221-6.
26. Reuter A, Silfverdal S-A, Lindblom K, Hjern A. A systematic review of prevention and treatment of infant behavioural sleep problems. *Acta Paediatrica*. 2019;109:1717-32.
27. Douglas PS. Behavioral sleep interventions in the first six months of life do not improve outcomes for mothers or infants: A systematic review. *Journal of developmental and behavioural paediatrics*. 2013;34(7):497-507.
28. Kempler L, Sharpe L, Miller CB, Batlett DJ. Do psychosocial sleep interventions improve infant sleep or maternal mood in the post-natal period? A systematic review and meta-analysis of randomised controlled trials. *Sleep medicine reviews*. 2016;29:15-22.
29. Australian Association for Infant Mental Health. Controlled crying position paper. Australia 2013.
30. Middlemiss W, Granger DA, Goldberg WA, Nathans L. Asynchrony of mother-infant hypothalamic-pituitary-adrenal axis activity following extinction of infant crying responses induced during the transition to sleep. *Early Human Development*. 2011;88:227-32.
31. Tresillian. Settling 2021 [cited 2022. Available from: https://www.tresillian.org.au/media/1316/responsivesettling0-12months_tresillian_tipsheet.pdf.
32. Australian Institute of Family Studies. Too much time on screens? Screen time effects and guidelines for children and young people: Australian Government; 2022 [Available from: <https://aifs.gov.au/cfca/2021/08/05/too-much-time-screens-screen-time-effects-and-guidelines-children-and-young-people#:~:text=1%20no%20screen%20time%20for%20children%20younger%20than,young%20people%20aged%205%E2%80%9317%20years%20%28not%20including%20schoolwork%29>.

Related internal policies, procedures and guidelines

The following documents can be accessed in the Community Health Manual: [HealthPoint link](#) or [Internet link](#) or for WACHS staff in the [WACHS Policy link](#)

Breastfeeding and lactation concerns - assessment

Child and Family Centred Care

Growth – birth to 18 years

Growth – static or downward trajectory

Early Parenting Groups: A facilitator's guide

Let's Sleep: Facilitator guide

Related external legislation, policies, and guidelines

Australian Association for Infant Mental Health. [Controlled crying position paper](#)

Australian Breastfeeding Association
Circle of Security
Physical activity and exercise guidelines for all Australians
Ngala
Raising Children Network
Red Nose
WA Health policy frameworks Safe Infant Sleeping policy – also see Universal contact schedule guidelines
Guidelines for healthy growth and development
WA Health Safe Infant Sleeping e-learning package – Accessed via the Community Health Learning and Development, self-directed landing page

Useful resources (including related forms)
My care plan (CHS825)
Clinical Handover/Referral Form (PDF) (CHS663)
Clinical Handover/Referral Form (Electronic) (CHS663E)
Infant and Child Sleep Diary (CHS733)
Your New Baby 0-4 months
Your New Baby 4-12 months

This document can be made available in alternative formats on request.

Document Owner:	Nurse Co-Director, Community Health		
Reviewer / Team:	Clinical Nursing Policy Team		
Date First Issued:	June 2016	Last Reviewed:	March 2022
Amendment Dates:	16 June 2022	Next Review Date:	28 March 2025
Approved by:	Community Health Clinical Nursing Policy Governance Group	Date:	25 March 2022
Endorsed by:	Executive Director of Nursing	Date:	28 March 2022
Standards Applicable:	NSQHS Standards:  Child Safe Standards: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10		

Printed or personally saved electronic copies of this document are considered uncontrolled



Healthy kids, healthy communities

Compassion
Excellence
Collaboration
Accountability
Equity
Respect

Neonatology | Community Health | Mental Health | Perth Children's Hospital