GUIDELINE

Nocturnal enuresis - nurse led program

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

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

Only use this box if relevant (e.g. clinical document or available on an external website)

Aim

To support community nurses to provide a nurse-led Nocturnal Enuresis Program for children with nocturnal enuresis who meet the eligibility criteria.

Risk

Inadequate and delayed support for nocturnal enuresis can significantly impact the emotional wellbeing and quality of life of children and family functioning.

Background

Nocturnal enuresis is common in school children, with a prevalence of up to 20% in 5 year olds,[1] 5 -10% in 7 year olds[2], gradually decreasing as age increases[3] to 0.5 to 1% in teenagers and young adults.[1, 4] Prevalence appears to be similar worldwide.[5] In childhood and adolescence, there is an annual spontaneous remission rate of 14-15%.[1] Population studies suggest that up to 25% of children with nocturnal enuresis also have daytime incontinence and/or other lower urinary tract symptoms,[6] as well as chronic constipation and faecal incontinence [5]. Children with frequent enuresis as well as lower urinary tract symptoms are more difficult to treat and nocturnal enuresis is more likely to persist into adolescence.[6] Significant predictive factors for nocturnal enuresis are age, male gender, and parents' and siblings history of enuresis.[3] Boys are affected more than girls by a ratio of 2:1 (12.4% for boys and 6.5% for girls).[3]

Nocturnal enuresis is classified by the international Children's Society according to when it started (primary and secondary) and whether lower urinary tract symptoms are

present (non-monosymptomatic or monosymptomatic) (refer to definitions below). The differences between these subtypes influence the treatment choice.[5]

There is a common assumption that bedwetting resolves spontaneously. However, for those children and adolescents who continue to experience nocturnal enuresis, it can significantly impact their quality of sleep, self-esteem[7], emotional wellbeing and relationships with peers.[5] Nocturnal enuresis is a stigmatising condition,[5] that is not often discussed usually due to embarrassment, leading to feelings of shame, guilt, and helplessness and the risk of bullying.[6] The more severe the enuresis, the more psychosocial difficulties the child faces, and as severity and age increases, so does the impact on quality of an individual's life.[6]

Parents/caregivers also demonstrate a reduced quality of life, particularly mothers. Who have been found to have increased rates of anxiety and depression compared to mothers of non-enuretic children.[6] However, some parents/caregivers believe that nocturnal enuresis is due to laziness, defiance, behaviour problems or attention seeking and do not consider it to be a medical problem. Parents often underestimate the impact of enuresis on the child's self-esteem, relationships and general quality of life, particularly the increasing impact as the child ages.[6]

There are three main physiological factors in nocturnal enuresis:

- Defective sleep arousal
- Nocturnal polyuria
- Bladder factors, e.g. lack of inhibition of bladder emptying during sleep, reduced bladder capacity, or bladder overactivity. [5, 6]

However, not all children possess all three factors, and there is variation in the contribution of each factor from one child to another. Other factors also include:

- Family history: recognised to cluster in families, particularly from mothers.
- Sleep disordered breathing (such as snoring and sleep apnoea): affects children's ability to wake at night to pass urine.

Further, children with behavioural issues, obesity, developmental delay, physical or intellectual disability, attention deficit/hyperactivity disorder and autistic spectrum, have been found to have higher rates of nocturnal enuresis.[6] There may be a poor response to standard treatment for children with sleep apnoea, ADHD, autistic spectrum disorder and other behavioural disorders, and neurodevelopmental conditions.[6]

Alarm treatment is therapy based on the use of a device that gives a strong sensory signal (usually acoustic) immediately after an incontinence episode. It is most often used during the night-time.[8] Alarm training for children has been found in systematic reviews to be the first line treatment for monosymptomatic nocturnal enuresis and the most effective long term method, [1, 9, 4,10] with a success rate of up to 70%.[11] Alarms train children to suppress voiding during sleep or to wake to empty the bladder by signalling when they urinate. Bell and mat alarms are placed on the bed and are effective.[5] The NICE[12] guideline recommend continuing alarm treatment for a maximum of 12 weeks or until 14 consecutive dry nights are achieved.

Contraindications for alarm treatment include:[5]

- Lack of motivation by the child and family[2]
- Crowded housing
- Family stress
- Intolerance to disturbance of sleep (eg due to job demands, breastfeeding, illness)[5]
- Child sharing a bedroom[2, 13]
- Infrequent nocturnal enuresis (less than 1-2 wet beds per week)[12]
- Parents/caregivers struggling to cope with bedwetting or parental anger, blame or negativity towards the child.[12]

Definitions

Term	Definition
Daytime incontinence	Intermittent incontinence while awake Enuresis
Monosymptomatic	Enuresis with no daytime lower urinary tract symptoms
Nocturnal enuresis	Night-time bedwetting, the intermittent leakage of urine during sleep[8]
Non-monosymptomatic	Enuresis as well as other lower urinary tract symptoms
Primary	Never been dry at night for more than 6 months
Secondary	Have previously been dry at night for at least 6 months

Principles

- **Child and Family Centred Care** – Nurses need to provide a child and family centred care approach in the delivery of health care.
- **Culturally safe service delivery** - Nurses need to provide a service which demonstrates a welcoming environment that recognises the importance of cultural beliefs and practices of all clients.

- **Infection control practices** - nurses must follow the organisation's overarching Infection Control Policies in accordance with WA Health guidelines.
- **Evidence-informed practice** – nurses implement practices that are informed by current research and best practice.

Key Points

- Children must meet the eligibility criteria to participate in the program.
- Nocturnal enuresis is a common condition, and in isolation, is not associated with a major illness.
- Training nocturnal continence is a normal developmental process, with significant age variation.11
- Alarm therapy has the highest long-term success rate, but can be labour intensive for children and their families.11
- The alarm needs to be used continuously, every night without interruption. 11
- Key education messages for families and children are to be provided as appropriate to the audience.
- All nurses will refer to the Nursing and Midwifery Board AHPRA Decision-making framework in relation to scope of practice and delegation of care to ensure that decision-making is consistent, safe, person-centred and evidence-based.

Eligibility Criteria

A nocturnal enuresis program (is offered to all children and adolescents with nocturnal enuresis who meet the following eligibility criteria:

- Age range: 5.5 to 18 years old
- Child has adequate family/caregiver support to engage with the program
- Day time urine continence and bowel continence
- No ongoing issues relating to other comorbidities or constipation which may contraindicate the use of alarm therapy
- A nocturnal enuresis pattern of more than twice weekly
- Referred by appropriate medical practitioners, including:
    - General Practitioners
    - Paediatricians/Doctors from Perth Children's Hospital
    - Paediatricians from private practice
    - Paediatricians from Child Development Services
    - Paediatric urologists – private and health service-based practice.

Referrals to Child and Adolescent Health Service – Community Health (CAHS-CH) program can be accepted via CAHS-CH General Practitioner referral form or via CAHS-CH global email: CACH.EnuresisProgram@health.wa.gov.au

Equipment

- Mat and Alarm (box and charger)

Procedure

Steps	Additional Information

Preparation for Appointment
• Collect mat from storage that has been through the cleaning process.
• Check condition of the mat.
• Obtain alarm and check condition before placing on bench and plugging into electrical socket for charging.
• Check appointment schedule.
• Allow between 45–60 minutes for the first appointment (includes interview, education and writing of client notes).
• Check health records in CDIS to obtain relevant health history.
• Download relevant client handouts from HealthPoint related to the program:
  ○ CAH-001101 Alarm and Mat + progress diary
  ○ CAH-003428 Bedwetting Parent brochure (available to order).	

Assessment • Clients are always seen with parents and/or caregivers. • Obtain relevant health history (including developmental delay, ADHD, psychosocial/mental health, sleep history, and/or family history, and any contraindicated medications.	• The program can be offered for up to 12 weeks, dependent upon the clinical judgement of the enuresis nurse. If this goal is attained, the long-term program objective is for the

Steps	Additional Information
• Discuss home, school and social situation since a co-operative and supportive home life is important in enuresis management.[6] • Document outcomes in CDIS. • Confirm client's eligibility for the program. If not eligible, contact referrer using CAH-001106 Referral outcome letter. • Complete CHS151 Nocturnal Enuresis Health Record Form.	child to remain dry for the following six months.
Engagement and Consent • Describe the program to the child and parents/caregivers and explain the program's goals. Allow time for discussion of concerns and questions. (refer to 'Parent Education') • Complete consent for release of information, in CHS151 Nocturnal Enuresis Health Record Form and client information sheet. • Implied consent is obtained where a client/parent/caregiver indicates through their actions that they are willing to proceed with the enuresis program. • Obtain parent/caregiver signature on CHS151 Nocturnal Enuresis Health Record Form for the loan of equipment contract.	
Parent Education During first appointment: • Inform the client and their parents/caregivers that the aims of alarm treatment for nocturnal enuresis are to train the child and young person to: ○ recognise the need to pass urine ○ wake to go to the toilet or hold on ○ learn over time to hold on or to wake spontaneously and stop wetting the bed.[12] • Inform client parents/caregivers that it is important not to restrict fluid or diet as a treatment for bedwetting.[12]	

Steps	Additional Information

• Inform client and parents/caregivers that fluid requirements will vary according to factors such as physical activity levels, diet, and weather/ambient temperature. Refer to Appendix A for a guide to suggested fluid intake.[12]
• Inform client that it is important to use the toilet regularly (4–7 times per day is considered normal).[12]
• Inform the client and their parents/caregivers that:
  ○ alarms have a high long-term success rate
  ○ using an alarm can disrupt sleep
  ○ that parents/caregivers may need to help the child or young person to wake to the alarm
  ○ using an alarm requires sustained parental and client commitment, involvement and effort
  ○ Progress needs to be recorded in the diary throughout the program (for example, when the child/young person wakes and how wet both the client and bed are)
  ○ alarms are not suitable for all clients and their families, and not all who use them achieve success.[12]
• Provide information regarding:
  ○ how to set and use the alarm
  ○ how to respond to the alarm when it goes off
  ○ how to maintain the alarm
  ○ how to deal with problems with the alarm, including who to contact when there is a problem.	

Steps	Additional Information

• Inform the client and their parents/caregivers that it may take several weeks for the early signs of a response to the alarm to occur and that these may include:
  ○ smaller wet patches
  ○ waking to the alarm
  ○ the alarm going off later and fewer times per night.[12]
• Inform the client and their parents/caregivers that it may take weeks to achieve dry nights as a sign of a response to the alarm.[12]
• Inform client and parents/caregivers about 'overlearning' and the use of a drink prior to bedtime as a way of helping to consolidate treatment gains and improve response rates.[14]	

Review • Review progress diary and progress. Allow time for discussion of concerns, and questions. • Discuss stages and goals of the program. • At 4 weeks of the program, assess the client's response to treatment, and continue if the child or young person is showing early signs of response.[12] • Discuss with parents/caregivers the protocol for the return of equipment if parents do not wish to continue with the program, or when the client is to be discharged from the program. • Provide key messages as per 'Parent Education' above. • Complete CH151 Nocturnal Enuresis Health Record Form. • Advise parents/caregivers that the mat and alarm, and the equipment contract need to be brought to discharge appointment. • Stop treatment only if there are no early signs of response.	• Schedule up to 5 review appointments daily. • Review clients every 2 weeks and allocate 30 minutes for each appointment. • Conduct review appointments where possible, in person with the client present. If not possible, conduct a phone call and ensure the client as well as the parents/caregivers are present.

Steps	Additional Information
• Continue alarm treatment in children and young people with bedwetting who are showing signs of response until a minimum of 2 weeks' uninterrupted dry nights has been achieved.[12] • Assess whether it is appropriate to continue with alarm treatment if complete dryness is not achieved after 3 months. Only continue with alarm treatment if the nocturnal enuresis is still improving and the client and their parents/ caregivers are motivated to continue.[12]	

Discharge
• Client is to be discharged from the program once 14 uninterrupted dry nights have been achieved.[2, 12]
or
• if there has not been a response to the program by 4 - 6 weeks.[11, 12]
• Ensure that parents/caregivers have brought the mat and alarm to the discharge appointment, as well as a copy of the signed CHS151 Form.
• Inform parents/caregivers about discharge information.
• Complete the following (refer to links below in 'Forms'):
  ○ CAH-001100 Discharge information letter
  ○ CAH-001106 Referral outcome letter sent to the referrer.
• If equipment is not returned, follow up by phone on a weekly basis, or alternatively, send a written communication.
• Complete CHS151 Nocturnal Enuresis Health Record Form to demonstrate proof of returned equipment.
• Prepare mats to dispatch for cleaning.
	• Once 14 consecutive dry nights have been achieved, clients can be advised to drink a large drink each night an hour before bedtime,[6] and continue with using the alarm, until a further 7 consecutive dry nights have been achieved. This can encourage overlearning' and assists in reducing relapse rates.[2, 6,14]
	• Overlearning should **not** be used if the child is taking desmopressin medication.[6]
	• Refer to Appendix B 'Mat Cleaning Procedure'

Steps	Additional Information
• Complete CHS151 Nocturnal Enuresis Health Record Form with necessary discharge information.	
Follow Up • Phone parents/caregivers and client 6 months post discharge to review progress. • Encourage parents/caregivers to contact the nurse if their client starts to experience nocturnal enuresis again, to ensure they are placed on repeat list. • Program can be repeated up to 2 times,	• Consider offering a repeat of the alarm program, if the client (who was previously dry with an alarm) has started regularly bedwetting again,[12] or if the client did not achieve 14 consecutive dry nights.
Referral • If a child is unable to achieve night dryness after 2 attempts of the program, referral from a GP to a paediatrician or paediatric urology is required before further participation in the program.	

Documentation

Nurses maintain accurate, comprehensive and contemporaneous documentation of assessments, planning, decision making and evaluations according to CAHS-CH processes.

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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
School-aged health services - primary
School-aged health services - secondary
Clinical Handover - Nursing
Infection Control Policies - CAHS

Related internal resources
Alarm and Mat Instructions - CAH-001101 Resource for parents
Bedwetting - CAH-003428 Parent brochure: available to order

Related forms
Nocturnal Enuresis Referral Form
Nocturnal Enuresis Health Record

External Resources
Bedwetting alarms and medication - Continence Foundation of Australia
Kids Wetting the Bed- Continence Foundation of Australia
Bladder and bowel for children | Australian Government Department of Health
Bladder Diary - Continence Foundation of Australia
Nocturnal Enuresis Toolkit
Manufacturer manual for mat and alarm http://ramseycoote.com.au/
Raising Children Network - Bedwetting
Resources available Continence Foundation of Australia (available in in Languages other than English [LOTE])

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

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Appendix B: Suggested daily intake of drinks for children and young people[12]

Age (Years)	Sex	Total Drinks per Day (ml)
4 - 8	Female	1000 - 1200
	Male	1000 -1400
9 -13	Female	1200 - 2100
	Male	1400 - 2300
14 -18	Female	1400 - 2500
	Male	2100 - 3200

Appendix B: Community Health Nocturnal Enuresis - Mat Cleaning Process

Step 1 – Mat returned from Client

Put on gloves

- Clean returned mat with detergent/disinfectant wipes if visibly soiled
- Inspect mat for damage. If in good condition, place in suitable location in the clinic to await transport for cleaning. This location should be separate to clean mats and clearly marked "For PCH Cleaning".
- If mat is damaged, send for cleaning prior to transport to RCI for repair.
- Tag item that is damaged for easy identification after post cleaning
- Note mat condition on database (currently W Drive).
- Record on database client returned mat and it is to go to PCH for cleaning.

Step 2 - Preparation of mats for PCH

All mats must be prepared before transport to PCH CSSD for cleaning in accordance with manufacturer's instructions. The preparation involves use of a surfactant-based transport gel with corrosion inhibitors (Pre-Klenz) to commence the cleaning process at the point of return. This preparation should occur within 72 hours prior to cleaning at CSSD.

Process

- Take CLAX trolley to storage room to place empty 50L box – not design to be pulled or pushed without trolley on CLAX trolley and wheel to clinic room/designated area to prep mats.
- The box (s) used should be 50L only. This size fits securely onto the CLAX trolley and avoids lifting, dragging, pushing or pulling boxes around the clinic environment in line with OSH requirements.
- Leave the box on the trolley; ensure clinic name, address and contact mobile is written in permanent marker on the lid ensuring PCH knows which clinic the mats are from so they can be returned to the correct clinic and the PCH/Courier can contact the clinic with any queries. Inform the courier they are for PCH CSSD.
- Don PPE e.g. Gloves, safety glasses and apron
- Place open plastic liner within the box.
- Place mat upright within the liner of the box
- Spray mat evenly with *Steris Pre-Klenz* solution

- Lay mat flat in plastic bag.
- Repeat until a maximum of 5 mats are prepped and placed in the box as per OSH requirements. Each mat is 1.8 kg in weight therefore the weight restriction is a maximum of 9 kg per box.
- Roll the edges of the box liner together tightly to secure the load.
- Remove PPE and attend hand hygiene so to ensure that outside of box is not contaminated by dirty gloves
- Ensure ID tag and barcode attached to mat for use by PCH CSSD.
- Place lid on box and secure tightly using the clips.
- Record the mat information on database (currently W Drive)
- Prepare second box if required.
- Wheel CLAX trolley to designated pick up/storage area for prepped mats to await pick up.

Step 3 –Dispatch and Returns using courier service

If there are any changes required to the schedule, contact the courier to advise and include CNM in all communication. **All Enuresis boxes are picked up one week and returned cleaned the following run.**

- If there are any changes to the route email the couriers and follow this up with a phone call to ensure that the whole route is not cancelled or changed, just the one that affects your clinic.
- Courier must use CLAX trolley or dolly (some have one on their van) to transport box (s) to and from the vehicle.
- Ask the courier to place the box (s) at designated space/area within your clinic that is safe and avoids lifting for you or another clinician.
- The person sending the boxes and accepting the returned boxes can sign the courier's documentation.
- We are unable to arrange ad-hoc courier pick up and drop offs to PCH.
- Clax trolley is to be cleaned using detergent/ disinfectant wipes after box is collected

Step 4 – Receival of Clean Mats

- Each box will have up to 5 clean mats, wrapped separately in a clear bag.
- Proof of disinfection will be returned for your records inside the box.

- Cross reference returns with what was sent the previous run via the database.
- Inspect each mat for damage.
- Remove the mats from the plastic and place in designated cupboard.
- Update clinic database (W Drive) with location and ID tag numbers.
- Once box empty, wipe down with Detergent wipes, leave to dry.
- Wheel box to storage space on CLAX trolley until required the following week.

See Nocturnal Enuresis courier process for your zone.

Important:

- All mats are couriered between clinics – Transferring mats in personal vehicles must be approved by the CNM
- If no staff are available to prepare, send or receive mats the Enuresis school health nurse is responsible for advising CNM to advise PCH and courier.