# APPENDIX B- NICE Nocturnal Enuresis / Bedwetting Guideline: Key clinical Questions and Search Strategies

#### Background link between the scope and questions

Questions listed have been developed in relation to the clinical areas covered in the NICE NE guideline scope. Each question has been written to cover a specific dimension of an area in the scope. The questions have been developed by the technical team in consultation with the clinical advisor who has provided guidance on wording and clinical relevance of the specific questions.

The questions are structured according to the PICO format, i.e. they consist of the **population**, **intervention(s)**, **comparison(s)**, and **outcome(s)** of interest to the guideline developers. The purpose of formatting questions in this style is so that structured literature searches of relevant electronic databases (e.g. Medline, Embase, CINAHL) can be developed by information scientists in order to identify relevant research studies.

Each question is essentially a topic for an individual systematic review conducted during the development phase of the guideline. Questions shaded in grey are to be combined and those in light blue are confirmed.

Clinical Question	Type of Study	Population	Intervention	Comparator	Proposed Outcome
Assessm ent					
What are the core elements of initial clinical history and examinatio n, in the evaluation of children and young people under 19 years old who have nocturnal enuresis (bedwetting )?	Non-RCT studies	Children and young people under 19 years old who have nocturnal enuresis (bedwetting) Sub group to include patients with: Special needs (learning disabilities, emotional and ADHD)	History taking and examination	None	Excluding secondary causes Establish pattern of wetting to include: Overactive bladder Constipation
General evidence review on assessme nt.					
What are the core laboratory urine / blood	Non-RCT studies	Children and young people under 19 years old who have nocturnal enuresis (bedwetting)	Laboratory urine / blood tests	None Other diagnostic tool	Excluding secondary causes Establish pattern of wetting to include

		1			
tests in the					
evaluation					Overactive bladder
of children					
and young					
people					
under 19					
years old					
who have					
nocturnal					
enuresis					
(bedwetting					
)? General					
evidence					
review on					
assessme					
nt					
What is the	Non-RCT	Children and young people	Radiological	None	Excluding secondary
incremental	studies	under 19 years old who have	examinations		causes
benefit and		nocturnal enuresis (bedwetting)	(e.g. ultrasound)	Other diagnostic	
cost		(11111)		tool	Establish pattern of
effectivene		Therapy resistant children			wetting to include
ss of					
radiologic		Daytime symptoms			Overactive bladder
al					
examinatio		UTI			
<b>n,</b> in the evaluation		Constinution			
of children		Constipation			
and young people					
under 19					
years old					
who have					
nocturnal					
enuresis					
(bedwetting					
)?					
,.					
General					
evidence					
review on					
assessme					
nt					
What are	Non-RCT	Children and young people	Bladder diaries	None	Excluding secondary
the core	studies	under 19 years old who have	and other tools		causes
elements		nocturnal enuresis (bedwetting)		Other diagnostic	
of bladder				tool	Establish pattern of
diaries and					wetting to include
other assessme					Overactive bladder
nt tools, in					
the					
evaluation					
of children					
and young					
people					
under 19					
years old					
who have					
nocturnal					
noolumai		l	L	1	

enuresis?					
General evidence review on assessme nt How should	Non-RCT	Children and young people	Psychological	None	Excluding secondary
a psychologi cal assessme nt be conducted, in the evaluation of children and young people under 19 years old who have nocturnal enuresis (bedwetting )? General evidence review on assessme nt	studies	under 19 years old who have nocturnal enuresis (bedwetting)	assessment	Other diagnostic tool	causes Establish pattern of wetting to include Overactive bladder
Support and follow up/ relapse preventi on	RCT for general NE (bedwettin g)populati on				
	Non-RCT studies (CCT, cohort level) for subgroup data.				
What is the clinical and cost effectivene ss of <b>support</b>	RCT for general NE population	Children and young people under 19 years old who have nocturnal enuresis (bedwetting) Sub groups to include patients with:	Support and follow up for patients	No support or follow up	Continued success Relapse prevention Psychological effects(self-esteem,
and follow up care for children and young people under 19 years old who have	Non-RCT studies (CCT, cohort level) for subgroup data.	Day time symptoms Young (under 7 years) Special needs (learning disabilities, emotional and ADHD)			self-concept, PinQ) Quality of life measure Drop out

	r		[		,
nocturnal		Severe wetting (6-7 nights a			
enuresis		week)			
(bedwetting					
)?		Previously successful and with			
		subsequent relapse			
No					
evidence					
indentified					
What is the	RCT for	Children and young people	Support and	No support or	Continued success
clinical and	general	under 19 years old who have	follow up for	follow up	
cost	ŇE	nocturnal enuresis (bedwetting)	parents and	•	Relapse prevention
effectivene	population	Sub groups to include patients	carers		
ss of	1 - 1	with:			Psychological
support			Support groups		effects(self-esteem,
and follow		Day time symptoms	e appent groupe		self-concept, PinQ)
up care for	Non-RCT				
the	studies	Young (under 7 years)			Quality of life
parents	(CCT,				measure
and carers	cohort	Special needs (learning			
of children	level) for	disabilities, emotional and			Drop out
and young	subgroup	ADHD)			
people	data.	······			
under 19	u a la l	Severe wetting (6-7 nights a			
years old		week)			
who have					
nocturnal		Previously successful and with			
enuresis		subsequent relapse			
(bedwetting		oubooquoni rolapoo			
)?					
No					
evidence					
indentified					
What is the	RCT for	Children and young people	Relapse	No relapse	Continued success
clinical and	general	under 19 years old who have	prevention	prevention	
cost	NE	nocturnal enuresis (bedwetting)	strategies ( e.g.	strategies	Relapse prevention
effectivene	(bedwettin	Sub groups to include patients	follow-up, over-		
ss of	g)populati	with:	learning		Psychological
relapse	on		specifically to		effects(self-esteem,
prevention		Day time symptoms	alarms,		self-concept, PinQ)
strategies		. ,	intermittent use,		
for		Young (under 7 years)	sudden or slow		Quality of life
children	Non-RCT		withdrawal)		measure
and young	studies	Special needs (learning			
people	(CCT,	disabilities, emotional and	Drug or alarm		Drop out
under 19	cohort	ADHD)			
years old	level) for	· · · · · · · · · · · · · · · · · · ·			
who have	subgroup	Severe wetting (6-7 nights a			
nocturnal	data.	week)			
enuresis		,			
(bedwetting		Previously successful and with			
)?		subsequent relapse			
,		, <u>r</u>			
No					
evidence					
indentified					
	I	1	1	1	

What is the clinical and cost effectivene ss of treating relapses in previously successful in children and young people under 19 years old who have nocturnal enuresis	gen NE (bed g)pd on Nor stud (CC coh	CT, ort el) for group		eneral NE (bedwetting) opulation							
(bedwetting )? No evidence											
indentified What is clinical and cost effectivene ss of additional investigati on and treatment in children who have not responded to an adequate trial of both desmopres sin and or alarms?	gen NE pop (bec g) Nor stuc (CC coh	CT, ort ≳I) for group	Children and young people under 19 years old who have nocturnal enuresis (bedwetting)who have been unsuccessful in previous treatments Sub groups to include patients with: Day time symptoms Young (under 7 years) Special needs (learning disabilities, emotional and ADHD) Severe wetting (6-7 nights a week)		Psycholo assessm Radiolog investiga Treatme second t query ar treatmer	gical ations Int for time- ny other			num Dry con: Dry mor succ Dry year Adv Psy (self cond Qua mea	luction/change in aber of wet nights for 14 secutive nights for 6 consecutive aths (continuing cess) for 2 consecutive rs? erse events chological effects f-esteem, self- cept, PinQ) ality of life asure p-outs	
Patient Choice						1				1	To consider special needs children
In children ar young people with nocturna enuresis (bedwetting), how does patient or parent/carer choice over	e 1	Surve Intervi ws		Children and young people under 19 years old who have nocturnal enuresis (bedwetting) Sub groups to include patients with: Day time wetting, urinary urgency and	car	tient and er bice	Patient choice compared to parent/car r choice compared to clinician choice	e	Reduction/char in number of w nights Dry for 14 consecutive nig Dry for 6 consecutive	et	Looking for patient preference trials, otherwise extrapolations, narrative etc.

[	1	-	1		1
treatment		frequency		months	
intervention				(continuing	
influence		No day time symptoms		success)	
treatment		(monossymptomatic			
outcomes?		NE)		Dry for 2	
				consecutive	
Evidence		Nocturnal Poliuria-		years?	
Review		large amounts of dilute			
		urine in the first 1/3 of		Adverse events	
		the night.			
				Psychological	
		Young (under 7 years)		effects (self-	
				esteem, self-	
		Special needs (learning		concept, PinQ)	
		disabilities, emotional			
		and behavioural e.g.		Quality of life	
		ADHD)		measure	
		Cocondomiconcet		Dran auto	
		Secondary onset		Drop-outs	
		Severe wetting (6-7			
		nights a week)			
		nights a week)			
		Family history			
		Previously successful			
		with alarm and with			
		subsequent relapse			
Family		· · ·			
Impact					
impaot	Surveys,	All groups			
What is the	Interview				
family impact	S				
of children and	0				
young people					
aged under 19					
who have					
Nocturnal					
Enuresis					
(bedwetting)?					
· · · · · · · · · · · · · · · · · · ·					
Evidence					
Review					
Under 5					
Year olds					
What are the	RCT for	General NE			
predictive,	general	(bedwetting)population			
prevention,	NE				
and	(bedwetti	Bladder dysfunction			
treatment	ng)popul				
options for 5-7	ation				
year olds?					
<b>Evidence</b>					
Evidence	Non-RCT				
Review	studies				

Complex	(CCT, cohort level) for subgroup data						
Complex behavioural What is the clinical and cost effectiveness of dry bed training for children and young people under 19 years old who have nocturnal enuresis (bedwetting)? Evidence Review	level) for subgroup	Children and young people under 19 years old who have nocturnal enuresis (bedwetting) Sub groups to include patients with: Day time wetting, urinary urgency and frequency No day time symptoms (monossym ptomatic NE) Nocturnal Poliuria-	Core -regu -drin -with (will from each posit Full s reter	or without ala need to furthe Cochrane rev hour, cleanlin ive practice)	r define but iews: waking iess training, ing (alarm with verlearning,	No treatment Alarms Other treatment	Reduction/change in number of wet nights Dry for 14 consecutive nights Dry for 6 consecutive months (continuing success) Dry for 2 consecutive years? Adverse events Psychological effects (self- esteem, self- concept, PinQ) Quality of life measure Drop-outs
		Polluria- large amounts of dilute urine in the first 1/3 of the night. Constipation Young (under 7 years) Special needs (learning disabilities, emotional and behavioural e.g. ADHD) Secondary onset					

Simple behavioural		Severe wetting (6-7 nights a week) Family history Previously successful with alarm and with subsequent relapse			
What is the clinical and cost effectiveness of bladder training / retention control training for children and young people under 19 years old who have nocturnal enuresis (bedwetting)? Evidence Review	RCT for general NE (bedwetting)p opulation Non-RCT studies (CCT, cohort level) for subgroup data	Children and young people under 19 years old who have nocturnal enuresis (bedwetting) Sub groups to include patients with: Day time wetting, urinary urgency and frequency (polissympt omatic) No day time symptoms (monossym ptomatic NE) Nocturnal Poliuria- large amounts of dilute urine in the first 1/3 of the night. Constipation Young (under 7	Daytime bladder training Retention control training	No treatment Other treatment	Reduction/change in number of wet nights Dry for 14 consecutive nights Dry for 6 consecutive months (continuing success) Dry for 2 consecutive years? Adverse events Psychological effects (self- esteem, self- concept, PinQ) Quality of life measure Drop-outs

		vears)				
What is the clinical and cost effectiveness of <b>fluid and</b> <b>dietary advice</b> for children and young people under 19 years old who have nocturnal enuresis (bedwetting)? <b>Evidence</b> <b>Review</b>	RCT for general NE (bedwetting )population Non-RCT studies (CCT, cohort level) for subgroup data	years)Special needs (learning disabilities, emotional and behavioural e.g. ADHD)Secondary onsetSecondary onsetSevere wetting (6-7 nights a week)Family historyPreviously successful with alarm and with subsequent relapseChildren and young people under 19 years old who have nocturnal enuresis (bedwetting)Sub groups to include patients with:Day time wetting, urinary urgency and frequency (polissympto matic)No day time symptoms (monossympt omatic NE)	Night time fluid restriction Increasing day time fluids Diet advice Diet or food restriction	No treatment Other treatment	r [ c r s [ } } / / / / / / / / / / / / / / / / /	Reduction/change in number of wet nights Dry for 14 consecutive nights Dry for 6 consecutive nonths (continuing success) Dry for 2 consecutive rears? Adverse events Psychological effects (self-esteem, self-concept, PinQ) Quality of life neasure Drop-outs
		symptoms			r	-
		Nocturnal Poliuria- large amounts of dilute urine in the first 1/3 of the night.				
		Constipation				

What is the clinical and cost effectiveness of star charts and other reward systems for children and young people under 19 years old who have nocturnal enuresis (bedwetting)? Evidence Review	RCT for general NE (bedwetting) ) population Non-RCT studies (CCT, cohort level) for subgroup data	Young (under 7 years) Special needs (learning disabilities, emotional and behavioural e.g. ADHD) Secondary onset Severe wetting (6-7 nights a week) Family history Previously successful with alarm and with subsequent relapse Children and young people under 19 years old who have nocturnal enuresis (bedwetting) Sub groups to include patients with: Day time wetting, urinary urgency and frequency (polissympto matic) No day time symptoms (monossympt omatic NE) Nocturnal Poliuria- large amounts of dilute urine in the first 1/3 of the night. Young (under 7 years) Special needs (learning disabilities,	Star charts and other reward systems	No treatment Other treatment	Reduction/change in number of wet nights Dry for 14 consecutive nights Dry for 6 consecutive months (continuing success) Dry for 2 consecutive years? Adverse events Psychological effects (self-esteem, self-concept, PinQ) Quality of life measure Drop-outs Behaviour changes
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Alarms		emotional and behavioural e.g. ADHD) Secondary onset Severe wetting (6-7 nights a week) Family history Previously successful with alarm and with subsequent relapse			
What is the clinical and cost effectiveness of alarms for children and young people under 19 years old who have nocturnal enuresis (bedwetting)? Evidence Review	RCT for general NE (bedwetting )population Non-RCT studies (CCT, cohort level) for subgroup data	Children and young people under 19 years old who have nocturnal enuresis (bedwetting) Sub groups to include patients with: Day time wetting, urinary urgency and frequency (polissympto matic) No day time symptoms (monossympt omatic NE) Nocturnal Poliuria- large amounts of dilute urine in the first 1/3 of the night. Young (under 7 years) Special needs (learning	Alarm alone (body worn, bed, vibrating, wireless, voice recorded, multi-tone, bell and pad)	No treatment; Alarm and drugs (Desmopressin, Imipramine, amitriptyline, nortriptaline, anticolinergic oxybutinin, long-acting tolterodine) Drugs (Desmopressin, Imipramine, amitriptyline, nortriptaline, anticolinergic oxybutinin, long-acting tolterodine) Other treatment; Alarm with behavioural treatment (dry bed training) Complementary therapies Standard advice/care Alarm and support	Reduction/change in number of wet nights Dry for 14 consecutive nights Dry for 6 consecutive months (continuing success) Dry for 2 consecutive years? Adverse events (sleep disruption, false alarms, drop- outs) Psychological effects (self-esteem, self- concept, PinQ) Quality of life measure Drop-outs

Drugs		disabilities, emotional and behavioural e.g. ADHD) Secondary onset Severe wetting (6-7 nights a week) Family history Previously successful with alarm and with subsequent relapse			
What is the clinical and cost effectiveness of desmopressin (nasal, tablets and melts) for children and young people under 19 years old who have nocturnal enuresis (bedwetting)? Evidence Review	RCT for general NE (bedwetting )population Non-RCT studies (CCT, cohort level) for subgroup data	Children and young people under 19 years old who have nocturnal enuresis Sub groups to include patients with: Day time wetting, urinary urgency and frequency (polissympto matic) No day time symptoms (monossympt omatic NE) Nocturnal Poliuria- large amounts of dilute urine in the first 1/3 of the night. Young (under 7 years) Children with sickle cell	Desmopres sin Nasal, tablets and melts (N.B. nasal not licensed for NE but much evidence from this area)	No treatment Other treatment (alarm, desmo combined with anticolinergic- oxibutinin, alarm combined with desmopressin, imipromine Placebo	Reduction/change in number of wet nights Dry for 14 consecutive nights Dry for 6 consecutive months (continuing success) Dry for 2 consecutive years? Adverse events (fluid retention, constipation) Psychological effects (self-esteem, self-concept, PinQ) Quality of life measure Drop-outs

		disease			
What is the	Additional Searches-	disease Special needs (learning disabilities, emotional and behavioural e.g. ADHD) Secondary onset Severe wetting (6-7 nights a week) Family history Previously successful with alarm and with subsequent relapse Children and young people	Desmopres	No treatment	Reduction/change in number of wet nights
clinical and cost effectiveness of desmopressin (nasal, tablets and melts) for children and young people under 19 years old who have nocturnal enuresis (bedwetting)? (High versus Low Dosages) Evidence Review	Non-RCT studies (CCT, cohort level)	under 19 years old who have nocturnal enuresis (bedwetting) Sub groups to include patients with: Day time wetting, urinary urgency and frequency (polissympto matic) No day time symptoms (monossympt omatic NE) Nocturnal Poliuria- large amounts of dilute urine in the first 1/3 of the night. Young (under 7 years) Children with sickle cell disease	Nasal, tablets and melts (N.B. nasal not licensed for NE but much evidence from this area)	Other treatment (alarm, desmo combined with anticolinergic- oxibutinin, alarm combined with desmopressin, imipromine Placebo	Dry for 14 consecutive nights Dry for 6 consecutive months (continuing success) Dry for 2 consecutive years? Adverse events (fluid retention, constipation) Psychological effects (self-esteem, self-concept, PinQ) Quality of life measure Drop-outs

clinical and cost effectiveness of tricyclic drugs for children and young people under 19 years old who have nocturnal enuresis(bedwe tting)? eventse in conditional studies conditional studies conditional studies conditional studies (CCT, cohort level) fo				1
clinical and cost effectiveness of tricyclic drugs for children and young people under 19 years old who have nocturnalgeneral (bedwet )populat Non-RC Non-RC (CCT, cohort level) fo subgrou data	Special needs (learning disabilities, emotional and behavioural e.g. ADHD) Secondary onset Severe wetting (6-7 nights a week) Family history Previously successful with alarm and with subsequent relapse	(learning disabilities, emotional and behavioural e.g. ADHD) Secondary onset Severe wetting (6-7 nights a week) Family history Previously successful with alarm and with subsequent		
	eral NE young people under 19 years old who have nocturnal enuresis (bedwetting) -RCT Sub groups to lies include T, patients with: ort I) for Day time group wetting,	general NE (bedwetting) )populationyoung people under 19 years old who have nocturnal enuresis (bedwetting)drugs – Imipramin amitriptyl , nortriptaliNon-RCT studies (CCT, cohort level) for subgroup dataSub groups to include patients with:drugs – Imipramin amitriptyl , nortriptaliNon-RCT studies (CCT, cohort level) for subgroup dataDay time wetting, urinary urgency and frequency (polissympto matic)No day time symptoms (monossympt omatic NE)No day time symptoms (monossympt omatic NE)Nocturnal Poliuria- large amounts of dilute urine in the first 1/3 of the night.Young (under 7 years)Young (under 7 years)	ne Placebo	Reduction/change in number of wet nightsDry for 14 consecutive nightsDry for 6 consecutive months (continuing success)Dry for 2 consecutive years?Adverse events (fluid retention, constipation)Psychological effects (self-esteem, self-concept, PinQ)Quality of life measureDrop-outs

What is the clinical and cost effectiveness of <b>anticholinergic</b> <b>drugs</b> for children and young people under 19 years old who have nocturnal enuresis (bedwetting)? <b>Evidence</b> <b>Review</b>	RCT for general NE (bedwetting) )population Non-RCT studies (CCT, cohort level) for subgroup data	Special needs (learning disabilities, emotional and behavioural e.g. ADHD) Secondary onset Severe wetting (6-7 nights a week) Family history Previously successful with alarm and with subsequent relapse Children and young people under 19 years old who have nocturnal enuresis (bedwetting) Sub groups to include patients with: Day time wetting, urinary urgency and frequency (polissympto matic) No day time symptoms (monossympt omatic NE) Nocturnal Poliuria- large amounts of dilute urine in the first 1/3 of the night. Young (under 7 years) Children with sickle cell disease Special needs	Oxybutinin (licensed) Long-acting Tolterodine (not licensed) is in the BNF for children	No treatment Other treatment Placebo Combination	Reduction/change in number of wet nights Dry for 14 consecutive nights Dry for 6 consecutive months (continuing success) Dry for 2 consecutive years? Adverse events (fluid retention, constipation) Psychological effects (self-esteem, self-concept, PinQ) Quality of life measure Drop-outs
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What is the clinical and cost effectiveness of dose escalation in oxybutinin for children and young people under 19 years old who have nocturnal enuresis (bedwetting) Evidence Review	Non-RCT studies (CCT, cohort level) for subgroup data	<ul> <li>(learning disabilities, emotional and behavioural e.g. ADHD)</li> <li>Secondary onset</li> <li>Severe wetting (6-7 nights a week)</li> <li>Family history</li> <li>Previously successful with alarm and with subsequent relapse</li> <li>Children and young people under 19 years old who have nocturnal enuresis (bedwetting)</li> <li>Sub groups to include patients with:</li> <li>Day time wetting, urinary urgency and frequency (polissympto matic)</li> <li>No day time symptoms (monossympt omatic NE)</li> <li>Nocturnal Poliuria- large amounts of dilute urine in the first 1/3 of the night.</li> <li>Young (under 7 years)</li> <li>Children with sickle cell disease</li> <li>Special needs (learning</li> </ul>	Oxybutinin (licensed) is in the BNF for children	No treatment Other treatment Placebo Combination	Reduction/change in number of wet nights Dry for 14 consecutive nights Dry for 6 consecutive months (continuing success) Dry for 2 consecutive years? Adverse events (fluid retention, constipation) Psychological effects (self-esteem, self-concept, PinQ) Quality of life measure Drop-outs
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Education / psychologic al intervention s	e.g. ADHD) Secondary onset Severe wetting (6-7 nights a week) Family history Previously successful with alarm and with subsequent relapse		
psychologic al intervention	(6-7 nights a week) Family history Previously successful with alarm and with subsequent relapse		
psychologic al intervention	Previously successful with alarm and with subsequent relapse		
psychologic al intervention	successful with alarm and with subsequent relapse		
psychologic al intervention			
What is the clinical and cost effectiveness of educational/inf ormation interventions for children and young people under 19 years old who have nocturnal ebdwetting)?RCT for generation (bedwet studies) (CCT, cohort level) f subgro dataEvidence ReviewEvidence for children and young people under 19 years old who have nocturnal needs of children and young people under 19 years old who have nocturnal needs of children and young people under 19 years old who have nocturnal enuresis (bedwetting)?Non-R studies (CCT, cohort dataEvidence reducational needs of children and young people under 19 years old who have nocturnal enuresis (bedwetting)?No evidence identified.	al NE young people under 19 years old who have nocturnal enuresis (bedwetting) RCT ss Sub groups to include t patients with:		

What is the	RCT for	Children and		
clinical and cost	general NE	young people		
effectiveness of	(bedwetting	under 19 years		
psychological	)population	old who have		
interventions	)	nocturnal		
for children and		enuresis		
young people		(bedwetting)		
under 19 years	Non-RCT	Sub groups to		
old who have	studies	include		
nocturnal	(CCT,	patients with:		
enuresis	cohort	•		
(bedwetting)?	level) for	Day time		
(	subgroup	wetting,		
Evidence	data	urinary		
Review	uala			
Review		urgency and		
		frequency		
		(polissympto		
		matic)		
		No day time		
		symptoms		
		(monossympt		
		omatic NE)		
		Nocturnal		
		Poliuria- large		
		amounts of		
		dilute urine in		
		the first 1/3 of		
		the night.		
		and might		
		Young (under		
		7 years)		
		r years)		
		0		
		Special needs		
		(learning		
		disabilities,		
		emotional and		
		behavioural		
		e.g. ADHD)		
		3,		
		Secondary		
		onset		
		01361		
		Source metting		
		Severe wetting		
		(6-7 nights a		
		week)		
		Family history		
		Previously		
		successful with		
		alarm and with		
		subsequent		
		relapse	1	

Alternative intervention s					
What is the clinical and cost effectiveness of alternative interventions for children and young people under 19 years old who have nocturnal enuresis (bedwetting)? Evidence Review	RCT for general NE (bedwetting ) population Non-RCT studies (CCT, cohort level) for subgroup data	Children and young people under 19 years old who have nocturnal enuresis (bedwetting) Sub groups to include patients with: Day time wetting, urinary urgency and frequency (polissympto matic) No day time symptoms (monosympto matic NE) Nocturnal Poliuria- large amounts of dilute urine in the first 1/3 of the night. Young (under 7 years) Special needs (learning disabilities, emotional and behavioural e.g. ADHD) Secondary onset Severe wetting (6-7 nights a week) Family history Previously successful with alarm and with subsequent	Acupunctur e Hypnothera py Chiropractic Homeopath y Cranial osteopathy Reflexology	No treatment Other treatment Placebo / sham acupuncture	Reduction/change in number of wet nights Dry for 14 consecutive nights Dry for 6 consecutive months (continuing success) Dry for 2 consecutive years? Adverse events Psychological effects (self-esteem, self-concept, PinQ) Quality of life measure Drop-outs

		relapse			
What is the clinical and cost effectiveness of the treatment for children and young people aged under 19 years of age who have nocturnal enuresis (bedwetting) and who do not respond to initial treatment with desmopressin and / or enuresis alarms)? Evidence Review	RCT for general NE (bedwetting )population Non-RCT studies (CCT, cohort level) for subgroup data.	Children and young people under 19 years old who have nocturnal enuresis (bedwetting) Sub groups to include patients with: Day time symptoms Young (under 7 years) Special needs (learning disabilities, emotional and ADHD) Severe wetting (6-7 nights a week) Previously successful and	Drug, alarm or any other intervention listed under the KCQs	No treatment Other treatment	Continued success Response/ partial response Psychological effects(self-esteem, self-concept, PinQ) Quality of life measure Drop out
		with subsequent relapse			

# Nocturnal enuresis (bedwetting) search strategies

The strategies were developed for use on the OVID interface and Search 2 via NLH. The following databases were searched: Cochrane Database of Systematic Reviews (CDSR), Database of Abstracts of Reviews of Effects (DARE), Health Technology Assessment Database (HTA), MEDLINE, EMBASE, CENTRAL, CINAHL and PsycINFO.

The Economic literature was searched using an economic and quality of life filter developed by ScHARR for Medline and EMBASE. The following were searched: NHS Economic Evaluations Database (NHSEED), MEDLINE, and EMBASE.

Searches were conducted for systematic reviews and randomised controlled trials using search filters developed by the Centre for Reviews and Dissemination, SIGN and Cochrane Collaboration. Additional searches were undertaken for studies of other designs.

Copies of all the search strategies are available on request from the National Clinical Guidelines Centre.

CENTRAL database via Cochrane Library Issue 4 2008

Searched 14/10/08 update 13/11/09

#1 MeSH descriptor Nocturnal Enuresis explode all trees

#2 (betwett\* or (bed near/2 wett\*)):ti,ab

- #3 (nocturna\* near/2 (enuresis or enuretic\* or incontinence)):ti,ab
- #4 (night\* near/2 (enuresis or enuretic\* or incontinence)):ti,ab

#5 (sleep near/2 (enuresis or enuretic\* or incontinence)):ti,ab

#6 (enuresis near/1 nocturna):ti,ab

#7 (child\* near/1 enuresis):ti,ab

#8 MeSH descriptor Enuresis, this term only

#9 MeSH descriptor Pediatrics, this term only

#10 MeSH descriptor Adolescent, this term only

#11 (child\* or pediatric\* or paediatric\* or boy\* or girl\* or juvenile\* or teen\* or adolescen\* or youth\*):ti,ab

#12 child\*:kw

#13 (#1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7)

#14 (#9 OR #10 OR #11 OR #12)

#15 (#8 AND #14)

#16 (#13 OR #15)

DARE database 1995-2008 & HTA Database 1995-2008

Via CRD Databases http://www.crd.york.ac.uk/CRDWeb/

Searched 13/10/08, update 13/11/09

#1 enuresis

# 2 MeSH Enuresis EXPLODE

# 3 bedwet\*

# 4 bed NEAR wet\*

# 5 night\* NEAR incontinence

# 6 sleep\* NEAR incontinence

# 7 enuretic\*

# 8 nocturnal NEAR incontinence

# 9 #1 or #2 or #3 or #4 or #5 or #6 or #7 or #8

Database: Ovid MEDLINE(R) <1950 to present

Via Ovid SP searched 13/10/08, 26/02/09

Update search: 15/12/09

### 1.1 Search Strategy:

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- 1 Nocturnal Enuresis/
- 2 (bedwett\$ or (bed adj2 wett\$)).ti,ab.
- 3 (enuresis adj nocturna).ti,ab.
- 4 (nocturna\$ adj2 (enuresis or enuretic\$ or incontinence)).ti,ab.
- 5 (night\$ adj2 (enuresis or enuretic\$ or incontinence)).ti,ab.
- 6 (sleep adj2 (enuresis or enuretic\$ or incontinence)).ti,ab.
- 7 (child\$ adj enuresis).ti,ab.
- 8 or/1-7
- 9 Enuresis/
- 10 exp child/
- 11 pediatrics/

#### 12 adolescent/

13 (child\$ or pediatric\$ or paediatric\$ or boy\$ or girl\$ or juvenile\$ or teen\$ or adolescen\$ or youth\$).ti,ab.

- 14 or/10-13
- 15 9 and 14
- 16 8 or 15

Database: EMBASE <1980 to present

Searched 13/10/08 and 26/02/09

update search: 15/12/09

Search Strategy:

\_\_\_\_\_

- 1 Nocturnal Enuresis/
- 2 (bed wett\$ or (bed adj2 wett\$)).ti,ab.
- 3 enuresis nocturna.ti,ab.
- 4 (nocturna\$ adj2 (enuresis or enuretic\$ or incontinence)).ti,ab.
- 5 (night\$ adj2 (enuresis or enureetic\$ or incontinence)).ti,ab.
- 6 (sleep adj2 (enuresis or enuretic\$ or incontinence)).ti,ab.
- 7 (child\$ adj enuresis).ti,ab.
- 8 or/1-7
- 9 ENURESIS/
- 10 Child/

- 11 pediatrics/
- 12 Adolescent/
- 13 juvenile/

14 (child\$ or pediatric\$ or paediatric\$ or boy\$ or girl\$ or juvenile\$ or teen\$ or adolescen\$ or youth\$).ti,ab.

- 15 or/10-14
- 16 9 and 15
- 17 8 or 16

Cinahl 1982-present via NLH Search 2

Searched 14/10/08, 26/2/09

Update search 13/11/09

## 1.2 Search History:

- 2. CINAHL; (enuresis ADJ nocturna).ti,ab; .
- 6. CINAHL; (child\* ADJ enuresis).ti,ab;
- 7. CINAHL; (nocturna adj2 enuresis).ti,ab;
- 8. CINAHL; (nocturna\* adj2 enuresis).ti,ab; .
- 9. CINAHL; (nocturna\* adj2 enuretic\*).ti,ab;
- 10. CINAHL; (nocturna\* adj2 incontinence\*).ti,ab;
- 11. CINAHL; (sleep adj2 enuresis).ti,ab;
- 12. CINAHL; (sleep adj2 enuret\*).ti,ab;

- 13. CINAHL; (sleep adj2 incontinence\*).ti,ab;
- 14. CINAHL; (night\* adj2 enuresis).ti,ab;
- 15. CINAHL; (night\* adj2 enuret\*).ti,ab;
- 16. CINAHL; (night\* adj2 incontinence).ti,ab;
- 17. CINAHL; (bedwett\*).ti,ab;
- 19. CINAHL; (bed adj1 wett\*).ti,ab; .
- 20. CINAHL; 2 OR 6 OR 7 OR 8 OR 9 OR 10 OR 11 OR 12 OR 13 OR 14 OR 15 OR 16 OR 17 OR 19;
- 21. CINAHL; ENURESIS/;.
- 22. CINAHL; exp CHILD/;
- 23. CINAHL; PEDIATRICS/;
- 24. CINAHL; ADOLESCENCE/;
- 25. CINAHL; (child\* OR pediatric\* OR paediatric\*).ti,ab;
- 26. CINAHL; (boy\* OR girl\* OR juvenile\*).ti,ab;
- 27. CINAHL; (adolescen\* OR teen\* OR youth\*).ti,ab;
- 28. CINAHL; 22 OR 23 OR 24 OR 25 OR 26 OR 27;
- 29. CINAHL; 21 AND 28;
- 30. CINAHL; 20 OR 29;

PsycINFO 1802-present via NLH Search 2

Searched 14/10/08, 26/02/09

Update search 13/11/09

Search History:

- 1. PsycINFO, (bedwett\*).ti,ab;
- 3. PsycINFO, (bed adj2 wett\*).ti,ab;
- 4. PsycINFO, (enuresis ADJ nocturna).ti,ab;
- 5. PsycINFO, (nocturna\* adj2 enuresis).ti,ab;
- 6. PsycINFO, (nocturna\* adj2 enuret\*).ti,ab;
- 7. PsycINFO, (nocturna\* adj2 incontinence).ti,ab;
- 8. PsycINFO, (night\* adj2 incontinence).ti,ab; .
- 9. PsycINFO, (night\* adj2 enuret\*).ti,ab;
- 10. PsycINFO (night\* adj2 enuresis).ti,ab;
- 11. PsycINFO, (sleep adj2 enuresis).ti,ab; .
- 12. PsycINFO, (sleep adj2 enuret\*).ti,ab;
- 13. PsycINFO, (sleep adj2 incontinence).ti,ab;
- 14. PsycINFO, (child\* adj1 enuresis).ti,ab;
- 15. PsycINFO, 1 OR 3 OR 4 OR 5 OR 6 OR 7 OR 8 OR 9 OR 10 OR 11 OR 12 OR 13 OR 14;