Diagnostic Approach to Children with Incontinence: Step 1

History, physical exam, tests and bladder and bowel evaluation

Dr Anne Wright
Cape Town 2012
A reminder - what do bladders and bowels do?

**Bladder: stores and voids**
- Detrusor relaxes
- Stores
- Sphincter contracts
- Voids
- Sphincter relaxes
- Via intact CNS

**Rectum: transit organ**
- Detrusor contracts
- Stores
- Sphincter contracts
Incontinence

Nocturnal enuresis
6-19%

Faecal incontinence
5-30%

Daytime urinary incontinence
Up to 19%

- Monosymptomatic
  2/3
- Non-mono
  Symptomatic
  1/3

Overactive bladder
16-18%

Dysfunctional voiding

Underactive bladder

Miscellaneous

Retentive

Non-retentive
Presentation to general Paediatrician

- Recent study in UK shows shift in the patterns of referral to the General paediatricians at a local district general hospital between 1988 and 2006: Thompson E et al Child health care Dev 2012
Prevalence of enuresis and daytime urinary incontinence

Prevalence of NE, Hong Kong
n=16512

Prevalence of DUI, UK 2x/week
n= 10819


Prevalence of any FI in UK population study

- Heron J et al J Urol 2008

Heron J et al J Urol 2008

GIRLS % N=4657

BOYS % N=4997
Rates of any faecal soiling in children with infreq DUI (<2x/week) and DSM IV DUI (2x/week)
History taking

A doctor who cannot take a good history and a patient who cannot give one are in danger of giving and receiving bad treatment. ~Author Unknown
History taking

• Engage the child/young person
  "Can you tell me what the most annoying thing is for you about the wee leaks?"

• Parents’ concerns
  "What worries you about the wetting problem?"

• Concerns are often expressed very generally
  "She leaves it to the last minute"
  "He says he doesn’t know when it is coming"
  "I can’t go on sleepovers"
History taking: general

• Birth history
  • Meconium
  • Early utis
  • Early constipation
  • Congenital abnormalities

• Medical history
  • Rec utis
  • Sickle cell disease
  • Motor disorder
  • Diabetes
  • Downs syndrome

• Developmental history
  • Toilet training
  • Learning impairment
  • Autism
  • ADHD
  • Dyspraxia

• Dietary history
  • Fluids/type
    • Excessive milk drinking
  • Fibre intake

• School issues
• Family history
• Impact on child
• Impact on family
Etiology of constipation: idiopathic

- 90% of cases of constipation are idiopathic

- Poor appetite
- Delayed defaecation
- Hard stools
- Painful defaecation
- Increasing rectal capacity
- Parental anxiety
- Fear
- Refusal
Constipation

Normal stool in rectum

Chronic constipation
More stool forms and backs into colon behind a large stool that gets stuck

Faecal impaction with overflow diarrhoea
- Large dilated rectum
- Palpable abdominal
- Faeces with overflow
- Soiling/often without sensation.
History taking: constipation and faecal incontinence

Structured history

“How often does pooh end up in pants?”

“Do you make a pooh
  • Every day/every two days/three days/once a week/once a month?”

“When you make a pooh is it hard to push it out? Do you ever try and stop it?”

“On the way out does it feel hard or hurt your bottom?”

“Is the pooh sometimes so large it won’t flush away?”

“What shape is the pooh?”

Rome III criteria*

• At least 1 episode faecal incontinence/week
• 2 or fewer defecations in toilet/week
• Retentive posturing/volitional withholding
• History of painful or hard bowel movements
• History of large diameter stool that may block the toilet
• Large faecal mass in rectum

*Rome III criteria fulfilled at least once per week for at least 2 months before diagnosis
Must include 2 or more of the following in a child with a developmental age of at least 4 years
Retentive posturing: constipation

- Classic straight-legged, on tip-toes/clenched buttocks, back arching
- Mistaken by parents as straining/pain
- Often hide out of the way
History taking: faecal incontinence

Red flags
- No meconium in first 48 hours of life
- Constipation dating from first weeks of life
- Ribbon stools in first year of life
- Poor growth
- Gross abdominal distention
- Abnormal LS spine/lower limb neurology
- Abnormal appearance/location of anus

Red flag conditions
- Hirschprungs
- Congenital GI abnormalities
- Hypothyroidism/hypercalcaemia
- Spinal dysraphism
- Congenital anorectal anomaly
## Structured History: daytime urinary incontinence

<table>
<thead>
<tr>
<th><strong>Severity</strong></th>
<th><strong>When does leakage occur</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>• How often; every day?</td>
<td>• With urgency</td>
</tr>
<tr>
<td>• Quantity;</td>
<td>• With sneezing, coughing, running, jumping, trampoline</td>
</tr>
<tr>
<td>• underwear only</td>
<td>• After voiding</td>
</tr>
<tr>
<td>• on to clothes</td>
<td>• Unaware</td>
</tr>
<tr>
<td>• +++ on to chair/floor</td>
<td>• Giggling only</td>
</tr>
<tr>
<td>• Need to change pants/clothes? times/day</td>
<td>• Only during favourite activities</td>
</tr>
<tr>
<td>• Pads day/night/nocturia</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Primary/secondary?</strong></th>
<th><strong>Stream</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Frequency of urination</td>
<td>• Easy to start</td>
</tr>
<tr>
<td>• Is urine very foul smelling?</td>
<td>• Starts before can get on to toilet</td>
</tr>
<tr>
<td>• Toilet fears and phobias?</td>
<td>• Very forceful</td>
</tr>
<tr>
<td>• Posturing</td>
<td>• Small amounts</td>
</tr>
<tr>
<td></td>
<td>• Difficult to start</td>
</tr>
<tr>
<td></td>
<td>• Stops and starts</td>
</tr>
<tr>
<td></td>
<td>• Need to use abdo straining</td>
</tr>
<tr>
<td></td>
<td>• Need to go back a few minutes later to void again</td>
</tr>
<tr>
<td></td>
<td>• Weak or dribbling stream</td>
</tr>
</tbody>
</table>
Overactive bladder

- Primary
- Wetting; small/large
- Enuresis /nocturia
- Frequency
- Urge incontinence
  - Leaks with urgency
  - Abdominal activity
  - Unaware
- Stream
  - Starts before can get on to toilet
  - Forceful
  - Small amounts
- Posturing

Detrusor overactivity

[Graph depicting voiding cystometry and video with markers for Pves, Pabd, Pdet, Qura, and EMG]
Dysfunctional voiding

- Secondary
- Wetting variable
- Foul smelling urine
- Toilet fears/ phobias
- Stress leakage
  - Unaware
  - Urge
- Stream
  - May be diff to start
  - Cannot demand void
  - Stop start variable flow
  - Abdo straining
  - Feeling of incomplete emptying
  - Return voiding

- May be complicated by OAB

Fig. 11-1. Schematic of normal coordinating voiding (A) and dysfunctional voiding (B). (Courtesy of the National Kidney Foundation of Texas, A Parent's Primer to Normal and Abnormal Voiding in Children, Dallas, TX)
Underactive bladder

- Large incompletely emptying bladders
- May be end-phase of obstructed voiding pattern
- Secondary
- Infrequent voider
- Foul smelling urine
- Leakage
  - Stress
  - Urgency
  - Enuresis intermittent
  - Unaware
- Stream
  - Poor
  - Abdominal straining
  - Interrupted
  - Cannot demand void
Others

Vaginal reflux

Post-void dribbling
Others

Giggle incontinence

- Only with *giggling*
- *Large accidents*
- ? *Cortical*

Voiding postponement

- Leaks during favourite activities
- Last minute rush
- Normal to large BC
- No frequency

Stress incontinence

- Unusual in children
- Cystic fibrosis
- Gymnasts/high impact sport
- Congenitally short urethra
Daytime urinary incontinence: red flags

- Continuous urinary leakage (ectopic ureter/neuropath)
- Maternal diabetes mellitus (sacral dysgenesis/caudal regression)
- Birthmarks/skin lesions at base of spine (spinal dysraphism)
- Talipes at birth/lower limb abnormalities (spinal lesion)
- Obstructed stream in boys (PUV)
History taking; nocturnal enuresis

- Primary/Secondary
- Severe: 6-7/7
- Moderate: 3-5/7
- Mild 1-2/7

- Clinical features
  - Wakeability
  - Copious quantities in first third of night
  - Multiple smaller wets with some waking

- Associated morbidity
  - Constipation
  - Daytime LUTS
  - Utis
  - Neurodevelopmental/learning issues
  - Parasomnias and other sleep issues
  - Obstructive sleep apnoeas

- Practical management and arrangements
- Child’s motivation
- Family tolerance
Observation

• Social responsiveness
• Listening
• Can they sit still?
• Externalising behaviours
• Internalising behaviours
• Offering information
• Able to cooperate with bladder scan and examination
• Can they follow your explanations
• Parent-child interaction

Posturing
Examination
General health and growth (diabetes/kidney disease/hypothyroidism)

Abdomen and anus

Genitals
Examination: Lumbarsacral spine. Spinal dysraphism and sacral dysgenesis
Lower limb and back signs

- Often subtle signs
- Asymmetry
- Claw foot; pes cavus/pes planus
- Talipes
- Non-specific pain in legs
- Back pain with straight leg raising
- Absent reflexes
- Scoliosis
Tests

Investigations
- Urine dipstick/mc&s
  - Uti, asymptomatic bacteriuria, DM, kidney disease
- Urinary tract ultrasound
- Uroflowmetry/EMG with residual urine
- Urinary tract infection work-up
- Urinary tract infection work-up as required

Bladder and Bowel diaries

Why do we use them?
- Objectifies history data, eliminates recall bias
- Gives valuable prognostic information
- Assists in the detection of children who need extra evaluation
- Detects families with low compliance

What should they record?
- Voided volumes: minimum 2 days
- Enuresis and other symptoms: minimum 1 week
- Fluid intake: minimum 2 days
- Bowel movements: minimum 1 week
- Day/nocturnal urine production (optional)
Bowel diary

Bowel diary information

• Bowel movements 1-2/52
• Bowel symptoms 1-2/52
  • Pain/discomfort
  • Type
  • Soiling

Bristol stool chart

(type 1) rabbit droppings
(type 2) bunch of grapes
(type 3) corn on cob
(type 4) sausage
(type 5) chicken nuggets
(type 6) porridge
(type 7) gravy

MOVICOL® Paediatric
# Bowel diary

## Bowel Diary Sheet

<table>
<thead>
<tr>
<th>Date started</th>
<th>Bowel action and type</th>
<th>Soiling</th>
<th>Tablets</th>
<th>Tummy pain today?</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sit</td>
<td>Stain</td>
<td>Medicines</td>
<td>Yes/no</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Spontaneous</td>
<td>Scrape</td>
<td>Suppositories</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Enemas</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Washouts</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Monday**
Date

**Tuesday**
Date

**Wednesday**
Date

**Thursday**
Date

**Friday**
Date

**Saturday**
Date

**Sunday**
Date

---

Remember  
\( \checkmark = \) bowel action in toilet  
\( S = \) episode of soiling  
\( \text{type} = \) choose a number from the Bristol Stool Scale  
\( \text{w.o.} = \) washout

ICCS slide library v1 2011
## Bladder diary

### Bladder diary information
- **Voidings**
  - **48h**
  - **Time**
  - **Volume**
- **Bladder symptoms**
  - **1-2/52**
  - **Episodes of wetting**
  - **Urgency**
- **Nocturnal urine production**
  - **1/52**
- **Fluid intake**
  - **Time**
  - **Volume**
  - **Type**

### Information from diary
- **Voiding frequency**
- **Voided volumes**
  - **MVV equate to EBC**
- **Voiding intervals**
  - **Voiding postponement**
  - **Return voiding**
- **Incontinence episodes**
- **Urgency**
- **Fluid intake**
  - **Fluid type**
  - **Drinking patterns**
Bladder and Bowel diary

On the next page, you will find a bladder diary. Keeping a bladder diary helps us to make an assessment of how your child’s bladder is working and gives us an idea of the amount your child drinks, the amount of urine your child’s bladder can hold and how often your child passes urine.

How to complete the bladder diary
Fill in the bladder diary as carefully as possible for two convenient days (preferably not school days).

- For each day record what and how much your child drinks (in mls or cups) and when they drink it.
- Use a jug to measure the amount of urine your child passes. Record the amount on the chart and the approximate time.
- If your child leaks, tick the column marked “wet”.

If possible every time your child passes urine please put a letter on the chart from the list below that describes how urgently your child had to get to the toilet:

A. My child felt no need to empty their bladder, but did so for other reasons
B. My child could have postponed voiding (emptying their bladder) as long as necessary without fear of wetting themself
C. My child could have postponed voiding for a short while, without fear of wetting themself
D. My child could not postpone voiding, but had to rush to the toilet in order not to wet themself
E. My child leaked before arriving at the toilet

Below is an example of how to complete the bladder diary

<table>
<thead>
<tr>
<th>Time</th>
<th>DAY 1</th>
<th>DAY 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>IN (drink)</td>
<td>OUT (urine)</td>
</tr>
<tr>
<td>Approx</td>
<td></td>
<td></td>
</tr>
<tr>
<td>07:00</td>
<td>120mls</td>
<td></td>
</tr>
<tr>
<td>08:00</td>
<td>1 cup milk</td>
<td></td>
</tr>
<tr>
<td>09:00</td>
<td>150mls water</td>
<td></td>
</tr>
<tr>
<td>10:00</td>
<td>90mls 45mls</td>
<td></td>
</tr>
<tr>
<td>11:00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Month Year
Bowel diary
On the next page you will find a bowel diary. Keeping a bowel diary helps us to assess how often your child opens their bowels and whether there are any problems with constipation.

How to complete the bowel diary
Fill in the bowel diary carefully for seven days.

• For each day record whether your child opened their bowels with a tick and the approximate time
• Record any discomfort with a tick
• Record the type of stool based on the shape and texture from the Bristol stool chart (see below)
• Record if there was any soiling or bowel accidents with a tick

Bristol stool chart

Below is an example of a bowel diary that has been completed.

<table>
<thead>
<tr>
<th>Day</th>
<th>Bowels open</th>
<th>Time</th>
<th>Discomfort</th>
<th>Stool Type</th>
<th>Any Soiling</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>√</td>
<td>6pm</td>
<td></td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>√</td>
<td>8am</td>
<td>√ mild</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>√</td>
<td>4pm</td>
<td></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>√</td>
</tr>
</tbody>
</table>
7 year old boy with sickle cell disease and a right hemiplegia presenting with primary severe nocturnal enuresis. On history has marked daytime urgency and frequency.

Dear Dr. Anne Wright,

Attached sheet is the fluid intake & output chart & stool chart for Jacob ( ). The reason I couldn't use the chart provided is because Jacob passes urine 2-3 times in an hour at times. Hope this chart helps.

Thank you,

One weeks Worth of charts

Normal Bowel habit

Total fluid intake 1750
**CC**

15 year old girl

Secondary onset DUI/ enuresis (x 1 year)

Urgency

Urge incontinence

Recurrent cystitis improved with prophylactic antibiotics

Bowels; every 3/7/type 1-3

Parents separated 3 years ago

Examination: NAD

### Bladder diary

<table>
<thead>
<tr>
<th>Time</th>
<th>N (drinks)</th>
<th>CUP (oz)</th>
<th>Wet</th>
<th>Urgency</th>
<th>IN (drinks)</th>
<th>CUP (oz)</th>
<th>Wet</th>
<th>Urgency</th>
</tr>
</thead>
<tbody>
<tr>
<td>07:00</td>
<td>1 cup orange</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>08:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>09:00</td>
<td></td>
<td>150 mls</td>
<td>✓</td>
<td>D</td>
<td></td>
<td>1 cup</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11:00</td>
<td></td>
<td>250 ml water</td>
<td></td>
<td>D</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12:00</td>
<td></td>
<td>100 ml</td>
<td></td>
<td>C</td>
<td>100 ml</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>120 mls</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15:00</td>
<td></td>
<td>150 mls</td>
<td>✓</td>
<td>E</td>
<td>100 ml</td>
<td>✓</td>
<td>E</td>
<td></td>
</tr>
<tr>
<td>16:00</td>
<td></td>
<td>250 ml water</td>
<td>50 ml</td>
<td>C</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18:00</td>
<td></td>
<td>30 ml</td>
<td></td>
<td></td>
<td>50 ml</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19:00</td>
<td></td>
<td>30 ml</td>
<td>✓</td>
<td>D</td>
<td>100 ml</td>
<td>✓</td>
<td>D</td>
<td></td>
</tr>
<tr>
<td>20:00</td>
<td></td>
<td>50 ml</td>
<td></td>
<td></td>
<td>40 ml</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>40 ml</td>
<td>30 ml</td>
<td></td>
<td></td>
</tr>
<tr>
<td>22:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10 ml</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10 ml</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24:00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# Dysfunctional Voiding Scoring System

*Farhat W J Urol 2000*

Patient to answer if appropriate (Please circle best answer)

**Patient Name:** Harley  
**Date:** 23-01-12  
**Reason for referral:**

<table>
<thead>
<tr>
<th>Over the last month</th>
<th>Almost never</th>
<th>Less than half the time</th>
<th>About half the time</th>
<th>Almost every time</th>
<th>Not available or Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I have wet clothes or wet underwear during the day</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>N/A</td>
</tr>
<tr>
<td>2. When I wet myself my underwear is soaked</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>N/A</td>
</tr>
<tr>
<td>3. I miss having a bowel movement every day</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>N/A</td>
</tr>
<tr>
<td>4. I have to push for my bowel movements to come out</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>N/A</td>
</tr>
<tr>
<td>5. I only go to the bathroom to pee one or two times a day</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>N/A</td>
</tr>
<tr>
<td>6. I can hold onto my pee by crossing my legs, squatting or doing the &quot;pee dance&quot;</td>
<td></td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>N/A</td>
</tr>
<tr>
<td>7. When I have to pee, I cannot wait</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>N/A</td>
</tr>
<tr>
<td>8. I have to push or strain to pee</td>
<td></td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>N/A</td>
</tr>
<tr>
<td>9. When I pee it hurts</td>
<td></td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>N/A</td>
</tr>
<tr>
<td>10. Parents to answer: Has your child experienced something stressful? For example: new baby, new home, divorce, death of someone close, abuse, school issues, injury, illness</td>
<td>NO = 0</td>
<td></td>
<td></td>
<td></td>
<td>YES = 3</td>
</tr>
<tr>
<td>11. I leak pee when I play sports, cough, sneeze</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>N/A</td>
</tr>
<tr>
<td>12. I leak pee because I cannot wait</td>
<td></td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>N/A</td>
</tr>
<tr>
<td>13. I leak pee because I cannot reach a bathroom in time</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>N/A</td>
</tr>
<tr>
<td>14. I leak pee at night while I am asleep</td>
<td></td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>N/A</td>
</tr>
<tr>
<td>15. I leak pee without any warning or urge</td>
<td></td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>N/A</td>
</tr>
<tr>
<td>16. I use protection (tissue, pads, pull-ups, goodnights) to protect against pee leaks during the day or night</td>
<td>Never</td>
<td>1</td>
<td>1 per day or less</td>
<td>3</td>
<td>4 or more per day</td>
</tr>
<tr>
<td>17. I don't do sleepovers, other activities, or sports because I am afraid I will leak pee</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>N/A</td>
</tr>
</tbody>
</table>
Bowels
7 year old boy with
1. Autism
2. Significant withholding, constipation, megarectum and soiling. Large stool passed every ten days.

<table>
<thead>
<tr>
<th>Bowel diary</th>
<th>Bowels open</th>
<th>Time</th>
<th>Discomfort</th>
<th>Stool Type</th>
<th>Any Soiling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sun 1/5/01</td>
<td>X</td>
<td>11.20</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>3.45</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mon 2/5/01</td>
<td>attempted</td>
<td>Overnight</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>poo on offer</td>
<td>6.30 pm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tues 3/5/01</td>
<td>4.00 pm</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weds 4/5/01</td>
<td>overnight</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thurs 5/5/01</td>
<td>overnight</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5.00 am</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>overnight</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3.30 pm</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4.00 am</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fri 6/5/01</td>
<td>6.30 am</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>overnight</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>6.30 pm</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sat 7/5/01</td>
<td>6.30 am</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>overnight</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sun 8/5/01</td>
<td>6/7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Remember to bring your Bladder and Bowel diaries with you to your next Outpatient appointment.
NAME: CH

INSTRUCTIONS:

- We want to try and find out how much pee your kidneys make at night-time.
- We need to measure this for 7 nights.
- Pee before going to bed in the toilet.
- Wear a pull-up to bed.
- Weigh the wet pull-up in the morning and record the weight.
- If you do not have scales at home, put the pull-up in double plastic bags and keep in a cool place then bring to clinic.
- Remember to do your first pee when you wake up into a jug and write down the volume.
- One gram of weight is equivalent to one ml of pee.

Before you start weigh one dry pull-up and write down the weight here: _______ grams

<table>
<thead>
<tr>
<th>NIGHT</th>
<th>NIGHT 1</th>
<th>NIGHT 2</th>
<th>NIGHT 3</th>
<th>NIGHT 4</th>
<th>NIGHT 5</th>
<th>NIGHT 6</th>
<th>NIGHT 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEE</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medicine</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st Pee Vol</td>
<td>120</td>
<td>90</td>
<td>120</td>
<td>180</td>
<td>150</td>
<td>150</td>
<td>90</td>
</tr>
<tr>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>WT. OF NAPPY (g)</td>
<td>270</td>
<td>300</td>
<td>450</td>
<td>270</td>
<td>330</td>
<td>360</td>
<td>300</td>
</tr>
<tr>
<td>=</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subtract Dry WT.</td>
<td>65G</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>= Over Night Pee Vol</td>
<td>325</td>
<td>325</td>
<td>505</td>
<td>385</td>
<td>415</td>
<td>445</td>
<td>325</td>
</tr>
</tbody>
</table>
Thank you! Any questions?