

FLOWS CLINIC

**Connie Chew
North Bristol Trust**

Bristol Uroflowmetry Clinic

- Set up in 1980
- Daily clinics
- Referrals mostly from Urologists, but also:
 - GPs, General Surgeons, Renal Consultants, Gynaecologists and the Continence Advisers
 - One stop clinics.

The Location

- Flows clinic - is within the Urodynamics Department
- Flows Room - a couch
 - a scanner
 - a flow meter and transducer
 - Ladies micturition chair, flow meter and transducer

Flow Clinic



In the Flow Room



Bladder Scanner



Male Flowmeter



Female Flowmeter





Before the clinic

We send the patients

- a frequency volume chart/bladder diary
- a Flow Studies information sheet
- ICIQ Male / ICIQ Female

ICIQ = International Consultation on
Incontinence Modular Questionnaire



North Bristol **NHS**
NHS Trust

Urodynamics



Exceptional healthcare, personally delivered

Flow studies

You should allow 2 to 3 hours for the test. Please eat and drink normally before you come for your test. If possible please arrive with a comfortably full bladder.

What the test involves

On arrival at the clinic, the flows nurse will meet you and fully explain the test to you. You will be asked to drink some water to fill your bladder. The flows nurse will discuss how much with you.

After drinking some water, you will need to wait until your bladder feels full. We will then ask you to pass water (urine), in privacy, into a specially adapted toilet (flowmeter) that will measure how quickly you pass urine. Once you have been to the toilet you will have an ultrasound scan of your bladder to see how empty it is. (The scan is performed by placing some warm gel on the skin over your bladder area and moving an ultrasound probe over the skin.)

This process will normally be repeated 2 or 3 times, which is why this test takes a long time.

BLADDER DIARY

YOUR NAME: _____

Please complete this 3 day bladder diary. Enter the following in each column against the time. You can change the specified times if you need to. In the time column, please write **BED** when you went to bed and **WAKE** when you woke up.

Drinks Write the amount you had to drink and the type of drink.

Urine output Enter the amount of urine you passed in millilitres (mls) in the urine output column, day and night. Any measuring jug will do. If you passed urine but couldn't measure it, put a tick in this column. If you leaked urine at any time write **LEAK** here.

Bladder sensation Write a description of how your bladder felt when you went to the toilet using these codes

0 - If you had no sensation of needing to pass urine, but passed urine for "social reasons", for example, just before going out, or unsure where the next toilet is.

1 - If you had a normal desire to pass urine and no urgency. "Urgency" is different from normal bladder feelings and is the sudden compelling desire to pass urine which is difficult to defer, or a sudden feeling that you need to pass urine and if you don't you will have an accident.

2 - If you had urgency but it had passed away before you went to the toilet.

3 - If you had urgency but managed to get to the toilet, still with urgency, but did not leak urine.

4 - If you had urgency and could not get to the toilet in time so you leaked urine.

Pads If you put on or change a pad put a tick in the pads column.

Here is an example of how to complete the diary.

Time	Drinks		Urine output	Bladder sensation	Pads
	Amount	Type			
6am WAKE			350ml	2	
7am	300ml	tea			
8am			✓	2	
9am					
10am	cup	water	Leak	3	✓

DAY 1 DATE: / /					
Time	Drinks		Urine output (mls)	Bladder sensation	Pads
	Amount	Type			
6am					
7am					
8am					
9am					
10am					
11am					
Midday					
1pm					
2pm					
3pm					
4pm					
5pm					
6pm					
7pm					
8pm					
9pm					
10pm					
11pm					
Midnight					
1am					
2am					
3am					
4am					
5am					

BLADDER DIARY YOUR NAME: _____

DAY 2 DATE: / /						DAY 3 DATE: / /					
Time	Drinks		Urine output (mls)	Bladder sensation	Pads	Time	Drinks		Urine output (mls)	Bladder sensation	Pads
	Amount	Type					Amount	Type			
6am						6am					
7am						7am					
8am						8am					
9am						9am					
10am						10am					
11am						11am					
Midday						Midday					
1pm						1pm					
2pm						2pm					
3pm						3pm					
4pm						4pm					
5pm						5pm					
6pm						6pm					
7pm						7pm					
8pm						8pm					
9pm						9pm					
10pm						10pm					
11pm						11pm					
Midnight						Midnight					
1am						1am					
2am						2am					
3am						3am					
4am						4am					
5am						5am					

Bladder sensation codes
 0 - No sensation of needing to pass urine, but passed urine for "social reasons"
 1 - Normal desire to pass urine and no urgency
 2 - Urgency but it had passed away before you went to the toilet
 3 - Urgency but managed to get to the toilet, still with urgency, but did not leak urine
 4 - Urgency and could not get to the toilet in time so you leaked urine

Hospital number ICIQ-UDS Female (MDI) Version 4 13/06/07 DAY MONTH YEAR

CONFIDENTIAL

Today's date

Urinary symptoms

Many people experience urinary symptoms some of the time. We are trying to find out about urinary symptoms that affect you, and how much this bothers you. We would be grateful if you could answer the following questions, thinking about how you have been, on average, over the **PAST FOUR WEEKS**.

1. Please write in your date of birth:

DAY MONTH YEAR

2a. How often do you pass urine during the day?

1 to 6 times	<input type="checkbox"/>	0
7 to 8 times	<input type="checkbox"/>	1
9 to 10 times	<input type="checkbox"/>	2
11 to 12 times	<input type="checkbox"/>	3
13 or more times	<input type="checkbox"/>	4

2b. How much does this bother you?
 Please ring a number between 0 (not at all) and 10 (a great deal)

0 1 2 3 4 5 6 7 8 9 10
 not at all a great deal

3a. During the night, how many times do you have to get up to urinate, on average?

none	<input type="checkbox"/>	0
one	<input type="checkbox"/>	1
two	<input type="checkbox"/>	2
three	<input type="checkbox"/>	3
four or more	<input type="checkbox"/>	4

3b. How much does this bother you?
 Please ring a number between 0 (not at all) and 10 (a great deal)

0 1 2 3 4 5 6 7 8 9 10
 not at all a great deal

4a. Do you have pain in your bladder?

never	<input type="checkbox"/>	0
occasionally	<input type="checkbox"/>	1
sometimes	<input type="checkbox"/>	2
most of the time	<input type="checkbox"/>	3
all of the time	<input type="checkbox"/>	4

4b. How much does this bother you?
 Please ring a number between 0 (not at all) and 10 (a great deal)

0 1 2 3 4 5 6 7 8 9 10
 not at all a great deal

Hospital number

ICIQ-UQS Male (MDI) Version 4 13/06/07 DAY MONTH YEAR
CONFIDENTIAL Today's date

Urinary symptoms

Many people experience urinary symptoms some of the time. We are trying to find out about urinary symptoms that affect you, and how much this bothers you. We would be grateful if you could answer the following questions, thinking about how you have been, on average, over the **PAST FOUR WEEKS**.

1. Please write in your date of birth: DAY MONTH YEAR

2a. How often do you pass urine during the day?

1 to 6 times	<input type="checkbox"/>	0
7 to 8 times	<input type="checkbox"/>	1
9 to 10 times	<input type="checkbox"/>	2
11 to 12 times	<input type="checkbox"/>	3
13 or more times	<input type="checkbox"/>	4

2b. How much does this bother you?
 Please ring a number between 0 (not at all) and 10 (a great deal)

0	1	2	3	4	5	6	7	8	9	10
not at all										a great deal

3a. During the night, how many times do you have to get up to urinate, on average?

none	<input type="checkbox"/>	0
one	<input type="checkbox"/>	1
two	<input type="checkbox"/>	2
three	<input type="checkbox"/>	3
four or more	<input type="checkbox"/>	4

3b. How much does this bother you?
 Please ring a number between 0 (not at all) and 10 (a great deal)

0	1	2	3	4	5	6	7	8	9	10
not at all										a great deal

4a. Do you have pain in your bladder?

never	<input type="checkbox"/>	0
occasionally	<input type="checkbox"/>	1
sometimes	<input type="checkbox"/>	2
most of the time	<input type="checkbox"/>	3
all of the time	<input type="checkbox"/>	4

4b. How much does this bother you?
 Please ring a number between 0 (not at all) and 10 (a great deal)

0	1	2	3	4	5	6	7	8	9	10
not at all										a great deal

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The Flows Visit

- Welcome and presentation
- Aim – 2 to 3 flows
- Urinalysis
- Post void residual scan
- Flows details
 - into notes
 - electronically
- Results will be sent back to referral for review



65a

NORTH BRISTOL NHS TRUST
"BRISTOL NOMOGRAM" Kadow et al, 1985. (Males over 50)
REPORT OF URINARY FLOW RATE INVESTIGATIONS (M)

NAME _____ HOSPITAL _____
ADDRESS _____ HOSPITAL No. BR/SM/HG _____
Other Hospital No. _____
d.o.b. / / Referred by: _____
DATE OF INVESTIGATION / / G.P. _____

CLINICAL FEATURES: _____

FLOW	VOLUME	NOMOGRAM VALUE (S.D.)	R.U. (ultra-sound)

Comments:—

Report to:—

906472

North Bristol NHS Trust
REPORT OF URINARY FLOW RATE INVESTIGATIONS

NAME: _____ HOSPITAL: _____
 ADDRESS: _____
 Hosp. No. BRI/SM/HG _____
 Other Hosp. No. _____ d.o.b. / / DATE OF INVESTIGATION: / /
 REFERRED BY: _____
 G.P. _____

CLINICAL FEATURES: _____

INITIAL R.U.: _____

FLOW RATE (ml/sec)	VOL. VOIDED (ml)	NOMOGRAM VALUE (S.D.)	R. U. ULTRA-SOUND

* Siroky et al, Urol. 322, (5), 665, 1979.

COMMENTS: _____

Report to: _____ 905270

Clinical Information System Suite (CISS)

Bladder Diary * Chart Completed

Comments

Average Micturition Frequency (Waking hours) Max. Duration Between Day Voids [hrs]

Average Nocturia Episodes * Average Nocturnal Urine Volume [ml] *

Average Nocturnal Episodes Due To Urgency Average Number of Urgency Incontinence Episodes

Average Fluid Intake [ml] * Maximum Voided Volume [ml] *

Average 24 hr Urine Volume [ml] * Average Voided Volume [ml] *

Average Number of Daytime Pads Used Average Number of Night-time Pads Used

Nocturnal Polyuria Index [%]

Clinical Information System Suite (CISS)

Uroynamics * Flow Rates * Done Pad Test

UPP VLPP Fill Void Video

Urine Dipstick Result * Done

Urine Dipstick Result

Blood Negative Nitrites Negative Leucocytes Negative Protein Negative
 Glucose Negative Ketones Negative pH Specific Gravity

Flow Rates (1) Add New Flow Rates

Maximum Flow Rate Qmax (1) [ml/sec] * Volume Voided (1) [ml] *
 Residual Urine (1) [ml] * Maximum Flow Rate Qmax (2) [ml/sec]
 Volume Voided (2) [ml] Residual Urine (2) [ml]
 Maximum Flow Rate Qmax (3) [ml/sec] Volume Voided (3) [ml]
 Residual Urine (3) [ml] Flow Rates Normogram *
 Average Flow Rate
 Flow Pattern

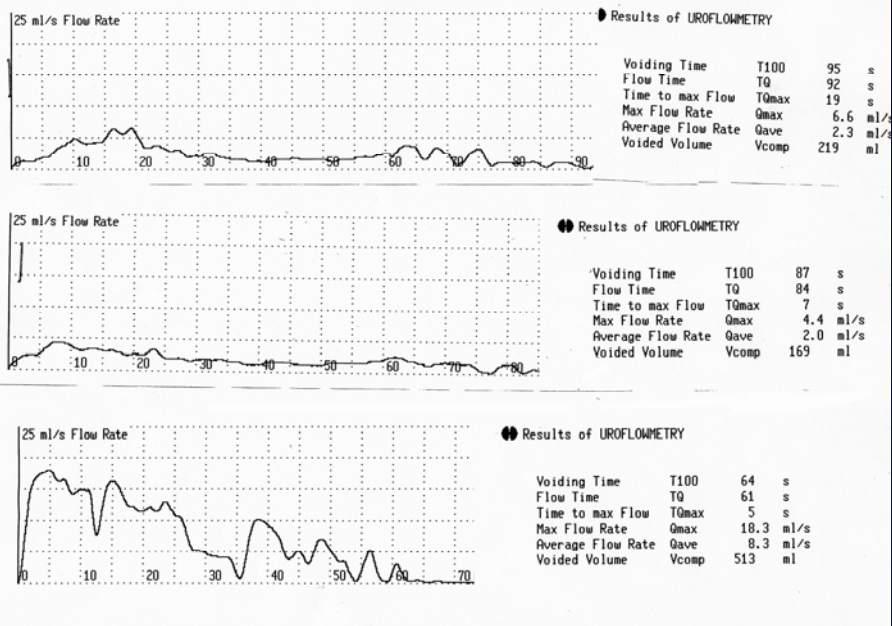
North Bristol **NHS**
HMS Trust
 "BRISTOL NOMOGRAM" Kadow et al. 1985. (Males over 50)
REPORT OF URINARY FLOW RATE INVESTIGATIONS (M)

NAME _____ HOSPITAL SMH
 ADDRESS _____ HOSPITAL No. BRUSMHG
 Other Hospital No. _____
 d.o.b. / / Referred by: urology
 DATE OF INVESTIGATION 8/9/08 G.P. _____
 CLINICAL FEATURES: Incomplete bladder emptying.
TURP 14.11.08

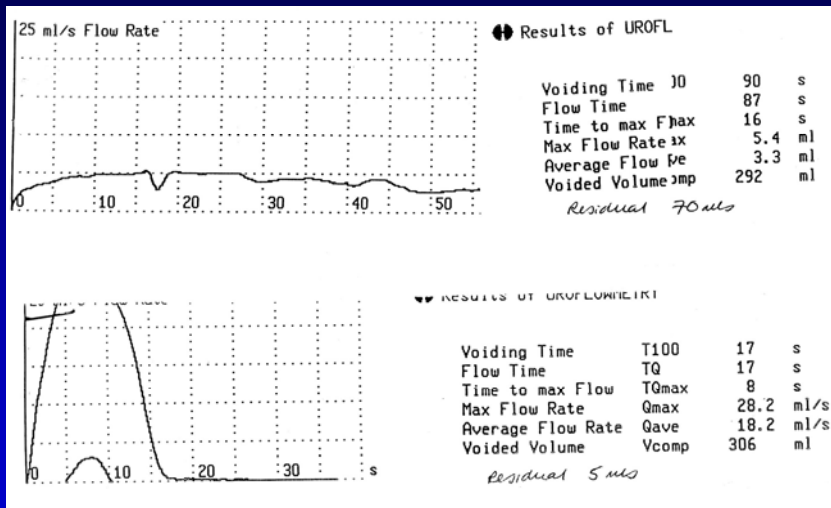
FLOW	VOLUME	NOMOGRAM (ml/sec)	RLU (ultra-sound)
7 (2)	219	Normal 1.50pm	2660
4 (2)	169	" 3.15pm	1780
18 (8)	513	" 9.35am	110

Comments: _____

Report to: PH



Before laser TURP



After laser TURP

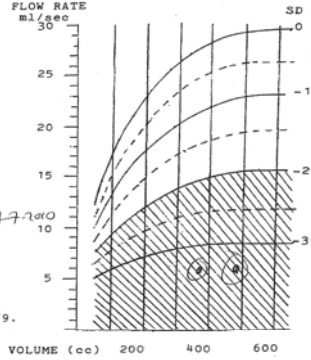
Sruti

STIGATION: 23 / 3 / 2010

CLINICAL FEATURES: *constant dribbling on voiding, end at the end of voiding*
Trabeculated bladder.

INITIAL R.U.:

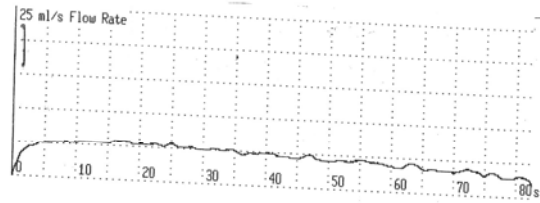
FLOW RATE (ml/sec)	VOL. VOIDED (ml)	NOMOGRAM VALUE (S.D.)	R.U. ULTRA-SOUND
6 (4)	371	9-05am Normal	290
6 (4)	495	10-20am Normal	250
35 (16)	340	4p Normal	20



* Siroky et al, Urol. 322, (5), 665, 1979.

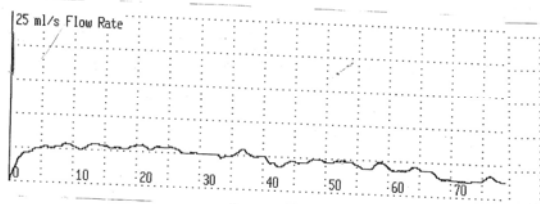
COMMENTS: *Asd urethral dilatation 7-6-2010*

Report to: *PATA* 905270



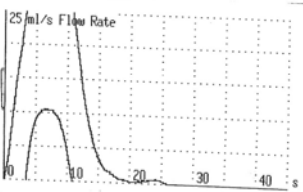
Results of UROFLOWMETRY

Voiding Time	T100	84	s
Flow Time	TQ	84	s
Time to max Flow	TQmax	16	s
Max Flow Rate	Qmax	5.7	ml/s
Average Flow Rate	Qave	4.4	ml/s
Voided Volume	Vcomp	371	ml



Results of UROFLOWMETRY

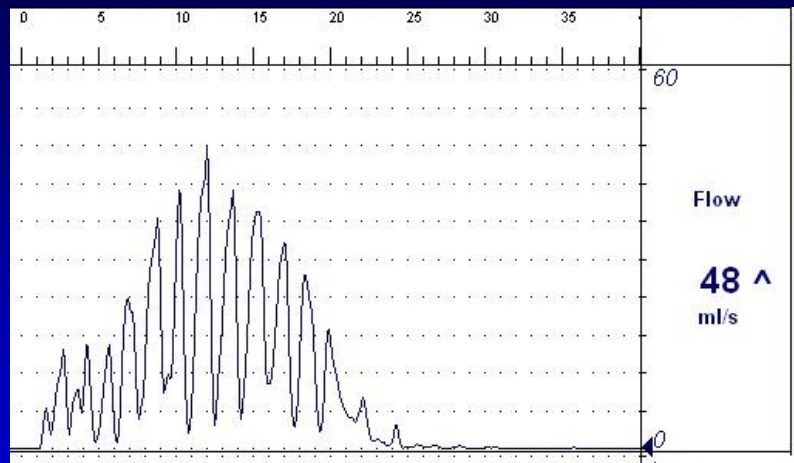
Voiding Time	T100	117	s
Flow Time	TQ	117	s
Time to max Flow	TQmax	21	s
Max Flow Rate	Qmax	6.1	ml/s
Average Flow Rate	Qave	4.2	ml/s
Voided Volume	Vcomp	495	ml

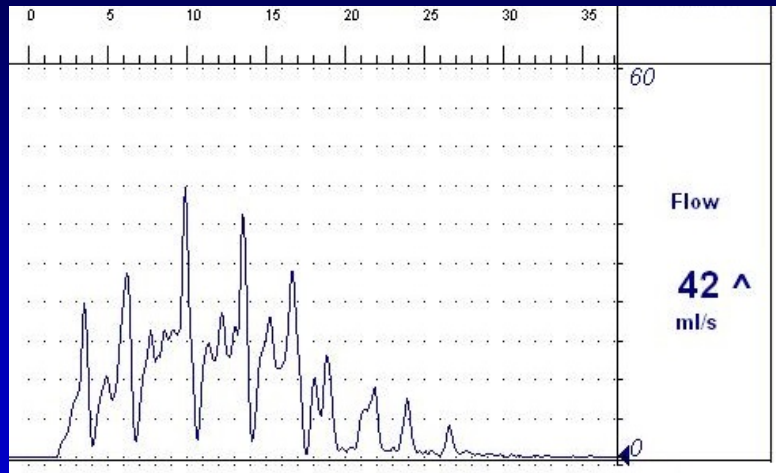


Results of UROFLOWMETRY

Voiding Time	T100	25	s
Flow Time	TQ	21	s
Time to max Flow	TQmax	6	s
Max Flow Rate	Qmax	35.4	ml/s
Average Flow Rate	Qave	16.2	ml/s
Voided Volume	Vcomp	340	ml

ARTEFACTS





Examples of Completed Bladder
Diary

BLADDER DIARY YOUR NAME

DAY 2 DATE 6/1/16					DAY 3 DATE 7/1/16						
Time	Drinks		Urine output (mls)	Bladder sensation	Pads	Time	Drinks		Urine output (mls)	Bladder sensation	Pads
	Amount	Type					Amount	Type			
6am						6am					
7am						7am			150	1	
8am			150	1		8am			100	1	
9am			240	1		9am			200	2	
10am						10am					
11am	320	COFFEE				11am	400	DRINK	50	0	
Midday						Midday					
1pm	310	SOUP	190	1		1pm					
2pm	220	COFFEE				2pm	250	SOUP	50	1 (230)	
3pm						3pm					
4pm	320	SOUP				4pm	200	COFFEE	70	1	
5pm			190	1		5pm			70	1	
6pm	300	COFFEE				6pm					
7pm						7pm			50	1	
8pm			200	1		8pm					
9pm						9pm	200		50	0	
10pm			100	1		10pm					
11pm	400	SOUP				11pm			110	1	
Midnight						Midnight					
1am	20		120	1		1am	100		150	1	
2am						2am					
3am			250	1		3am			200	1	
4am						4am					
5am			50	1		5am			350	1	

Bladder sensation codes
 0 - No sensation of needing to pass urine, but passed urine for "social reasons"
 1 - Normal desire to pass urine and no urgency
 2 - Urgency but it had passed away before you went to the toilet
 3 - Urgency but managed to get to the toilet, still with urgency, but did not leak urine
 4 - Urgency and could not get to the toilet in time so you leaked urine

BLADDER DIARY YOUR NAME: S

DAY 2 DATE 5/1/2016					DAY 3 DATE 6/1/2016						
Time	Drinks		Urine output (mls)	Bladder sensation	Pads	Time	Drinks		Urine output (mls)	Bladder sensation	Pads
	Amount	Type					Amount	Type			
6am						6am					
7am						7am					
8am			190	1		8am			110	1	
9am						9am					
10am	50	CUP TEA	90	1		10am					
11am						11am	20	GLASS WATER	140	1	
Midday	40	CUP COFFEE	110	1		Midday					
1pm						1pm					
2pm			120	0		2pm	2	CUPS TEA	270	1	
3pm						3pm	20	GLASS WATER	170	1	
4pm	20	GLASS WATER	100	1		4pm	20	CUP COFFEE	130	1	
5pm						5pm					
6pm	30	GLASS WATER	140	1		6pm	30	CUP TEA	160	1	
7pm						7pm					
8pm	50	CUP COFFEE	110	1		8pm	10	CUP COFFEE	130	1	
9pm						9pm	10	CUP TEA	140	1	
10pm						10pm					
11pm	15	GLASS WATER	110	1		11pm	GLASS	SOUP	170	1	
Midnight						Midnight					
1am						1am					
2am						2am					
3am						3am					
4am						4am					
5am						5am					

Bladder sensation codes
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BLADDER DIARY YOUR NAME: _____

DAY 2 DATE 6/1/16					DAY 3 DATE 7/1/16						
Time	Drinks		Urine output (mls)	Bladder sensation	Pads	Time	Drinks		Urine output (mls)	Bladder sensation	Pads
	Amount	Type					Amount	Type			
6am	100	WATER	500	3	6am						
7am					7am	200	TEA	375	3		
8am	200	TEA			8am						
9am			150	2	9am	200	TEA				
10am	200	TEA			10am	200	TEA	300	3		
11am					11am						
Midday	200	TEA	300	3	Midday	200	TEA				
1pm	100	WATER			1pm						
2pm			400	3	2pm						
3pm					3pm	200	TEA				
4pm	200	TEA			4pm	200	TEA	300	3		
5pm					5pm						
6pm	200	TEA	300	3	6pm	200	TEA	200	3		
7pm					7pm						
8pm	200	TEA			8pm	330	WATER				
9pm					9pm	200	TEA	300	3		
10pm					10pm						
11pm	200	TEA	300	3	11pm	550	BEER				
Midnight					Midnight	550	BEER				
1am					1am			200	3		
2am					2am						
3am					3am						
4am					4am						
5am					5am						

Bladder sensation codes
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6am 350 3

BLADDER DIARY YOUR NAME: _____

DAY 2 DATE / /					DAY 3 DATE / /						
Time	Drinks		Urine output (mls)	Bladder sensation	Pads	Time	Drinks		Urine output (mls)	Bladder sensation	Pads
	Amount	Type					Amount	Type			
6am			200	1	6am	6:25		190	1		
7am	6:45		100	1	7am	6:55		100	1		
8am	9:45		100	1	8am	7:30		100	1		
9am	10:15		50	1	9am	7:15		100	1		
10am	10:40		50	1	10am	10:15		25	1		
11am	11:15		20	1	11am	11:25		50	1		
Midday	12:45		20	1	Midday	11:35		100	1		
1pm	1:45		100	1	1pm	12:25		20	1		
2pm	2:45		50	1	2pm	12:40		20	1		
3pm	3:20		50	1	3pm	2:25		70	1		
4pm	4:05		50	1	4pm	3:05		50	1		
5pm	4:30		100	1	5pm	4:45		100	1		
6pm	6:05		100	1	6pm	5:30		100	1		
7pm	7:20		100	1	7pm	6:30		100	1		
8pm	8:40		100	1	8pm	7:35		100	1		
9pm	9:10		100	1	9pm	8:30		100	1		
10pm	10:15		100	1	10pm	9:30		100	1		
11pm	11:30		100	1	11pm	11:35		200	1		
Midnight	12:10		50	1	Midnight	12:05		100	1		
1am					1am						
2am	2:20		100	1	2am	2:35		200	1		
3am					3am	3:40		200	1		
4am	4:10		200	1	4am			100	1		
5am			90	1	5am	5:35		200	1		

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Thank You!

Any Questions?