Aneurin Bevan University Health Board

Maternity Bladder Care Guideline

N.B. Staff should be discouraged from printing this document. This is to avoid the risk of out of date printed versions of the document. The Intranet should be referred to for the current version of the document.

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Introduction

"Urinary incontinence is a common symptom that can affect women of all ages, with a wide range of severity and nature. Whilst rarely life threatening, incontinence may seriously influence the physical, psychological and social wellbeing of affected individuals. The impact on the families and carers of women with urinary incontinence may be profound, and the resource implications for the Health Service considerable" (NICE 2013)

Addressing the issue of continence when women are pregnant enables the promotion and maintenance of continence in women. During pregnancy and in the postnatal period women can be receptive to health promotion messages. Identifying women who may be symptomatic of incontinence at this time in their lives and providing interventions that aim to improve their continence not only improves their health and wellbeing but also has the potential to minimise the demand on the NHS in the future.

Aims

To promote continence during pregnancy, birth and the postnatal period.

Objectives

1) To ensure that health promotion messages are given in an effective manner during the antenatal and postnatal period.

2) To ensure that bladder care given during the antenatal, intrapartum and postnatal periods is consistent with best practice.

3) To guide staff in the prevention of and the management of postnatal retention of urine.

Scope

This document is intended for use by midwives and obstetricians working in the division of Family and Therapies providing the Maternity Service within Aneurin Bevan University Health Board.

In addition, it will provide guidance for physiotherapists and continence nurse specialists.

Roles and Responsibilities

It is the responsibility of all midwives, doctors, physiotherapists and nurses providing care to women during pregnancy or the postnatal period to be aware of this guideline and implement the identified actions contained within.

Antenatal Care and Documentation

- At booking, all women will be asked questions regarding their bladder and bowel function and given the relevant patient information literature. If a woman requests further help referrals can be made to Bladder and Bowel Nursing Service via:- abb.bladderandboweladmin@wales.nhs.uk
- Documentation should be completed on Badgernet.
- Midwives will advise all women how to do pelvic floor exercises correctly and this will be reinforced by written information (Fit for birth leaflet). https://pogp.csp.org.uk/system/files/publication_files/POGP-FFBirth%20%281%29.pdf

Induction of Labour Care

Bladder care begins on admission for Induction of Labour, or when admitted during the latent phase. It is important that women recognise the importance of bladder care at this stage. Maintaining a fluid balance from the start of the woman's admission allows accurate monitoring and calculation when established in labour.

- Bladder care must be explained to women on admission, providing woman with the patient information leaflet and guidance.
- Women to be provided with a fluid balance chart and asked to maintain their own fluid balance during their IOL/ latent phase admission.
- Women to record their oral intake at least 4 hourly.
- Women must be encouraged to pass urine 2-3 hourly, measuring, and recording each void.
- On transfer to another clinical area a Maternity Cumulative Fluid Balance total should be documented and clearly handed over.

Monitoring the Bladder during Labour

Monitoring and care of the bladder function during labour is essential to prevent bladder distension injury or dysfunction of the bladder. An overdistended bladder may also obstruct progress in labour and cause

postpartum haemorrhage.

- Women should be encouraged to empty their bladder at least every 4 hours and the frequency of passing urine and bladder sensation clearly documented.
- Encourage urine voids prior to a vaginal examination
- If unable to void urine, or where there are consistent small amounts of urine, intermittent catheterisation should be considered. This should be done prior to a vaginal examination to ensure minimal disruption to the woman and maintain her dignity.
- However, consider the use of an indwelling catheter if and in and out catheter is required on second consecutive void.
- Any catheterisation should be done under aseptic technique
- All urine voids should be measured and documented on the partogram
- This information should form part of the handover to the Postnatal Midwife caring for the women, including specifying time and amount of last void.
- If in and out catheterisation is required more than once an indwelling Foley catheter size 12 should be inserted.
- A fluid balance chart should be completed for all obstetric led labourers to accurately monitor women's in and out put.

Postpartum bladder care

- Following birth, it is essential that all women regardless of mode or place of birth are assessed to ensure they are able to empty their bladder adequately.
- For women who had an epidural and no other risk factors, the catheter should be removed 6 hours after the last top-up and /or when full sensation returns.
- For women who had an epidural, in presence of other risk factors like instrumental deliveries and simple perineal trauma, the catheter should not be removed for at least 6 hours.
- For women who had an epidural in presence of other risk factors like: pre-existing urinary dysfunction, midcavity/rotational instrumental deliveries, complex perineal trauma, oedema or haematoma, the catheter should not be removed for at least 12 hours after delivery.
- For caesarean section offer removal of urinary catheter once the woman is mobile after regional anesthetics, but no sooner than 12 hours from the last top-up.

- If the timing of removal of catheter falls after 00:00, it should be delayed until 06:00 to avoid disturbing the woman sleep and unnoticed retention overnight.

Promotion of continence in the postnatal period

- Midwives should reinforce the health promotion messages given during pregnancy about the value of pelvic floor exercises by signposting the patients to pelvic health physiotherapy webpage: https://abuhb.nhs.wales/hospitals/a-z-of-services/physiotherapy/pelvic-health-physiotherapy/
- Provide all women with a fit for the future leaflet: https://thepogp.co.uk/Resources/119/fitforthefuture
- All women must be assessed using pelvic floor referral pathway algorithm.
  (Appendix 5)
- Midwives would ensure that those who meet criteria are referred to physiotherapy.All referrals should be documented on Badgernet.

Resources

The pathway for postnatal bladder care suggests assessing the volume of urine in the bladder either with a bladder scanner or by undertaking in-out catheterisation. Either method is acceptable.
The pathway thus acknowledges that bladder scanners may not be available in all clinical areas.

Training

Doctors and midwives will be informed of the guideline in Clinical Governance days.
Midwives will receive updates every two years on the promotion of continence and bladder care in their mandatory study days. These sessions will be delivered by the physiotherapists and/or specialist continence nurses.

Standards for Health Services Wales
This guideline contributes to compliance with:

Standard 3: Health Promotion, Protection, and Improvement.

Standard 10: Dignity and Respect

In addition, the activity of this guideline links with:

Standard 6: Participating in Quality Improvement Activities

Standard 18: Communicating Effectively

Standard 26: Workforce Training and Organisational Development

Equality

•An equality impact assessment has been carried out No adverse impact has been identified.

Audit

Three key parts of this guideline will be audited:

- Compliance with the documentation "asking about bladder and bowel function at booking".
- Compliance with the Intrapartum and postpartum bladder care pathway and the associated documentation in women's notes.
- Compliance with the pelvic floor referral pathway.

Review

This guideline will be reviewed three years after the ratification date.

References

National institute for Clinical Excellence (NICE) (2013), "Urinary incontinence: the management of urinary incontinence in women" Clinical Guideline 171: www.nice.org.uk.

National Institute for Clinical excellence (NICE) 2023, "Intrapartum Care: Care of healthy women and their babies during childbirth" www.nice.org.uk.

Bladder injury at caesarean section

Introduction

The urinary bladder is adjacent to the uterus and therefore susceptible to intraoperative injury during Caesarean birth. Incidence of bladder injury during primary Caesarean is about 0.2% and during repeat Caesarean is about 0.6%.

Risk factors for intraoperative bladder injury include:

- Prolonged or obstructed labour with bladder distension
- Pregnancy with scarred uterus, e.g., previous Caesarean birth, myomectomy, reconstructive surgery to repair a uterine congenital anomaly, repaired uterine perforation.
- Suspected intra-abdominal adhesions, e.g., previous ectopic pregnancy, endometriosis, inflammatory bowel disease, chronic pelvic inflammatory disease.
- Distorted local anatomy-cervical/lower segment fibroid, congenital urogenital system anomaly
- Caesarean birth in advanced labour
- Placenta accreta spectrum
- Caesarean hysterectomy

More than 3 previous Caesarean births, unplanned Caesarean birth and Caesarean birth in labour are associated with a significantly higher chance of intraoperative bladder injury and consideration should be made to minimising the chance of injury with adequate intrapartum bladder care, careful adhesiolysis and the presence of a suitably experienced clinician in the operating theatre.

Recognition of an intraoperative bladder injury

Signs suggestive of a bladder injury include.

- Urine visualised in the operative field.
- Transurethral Foley's catheter bulb visualised in the operative field.
- Haematuria

If there is any suspicion of an injury, it can be confirmed by instillation of diluted dye (methylene blue) through the transurethral catheter into the urinary bladder and observing the coloured leak.

If a large or posterior injury is suspected cystoscopy, ureteric catheterisation, or indigo carmine intravenous administration should be

performed by a urogynaecologist or urologist.

Repair of the injury:

Immediate repair is recommended. Exceptions to immediate repair include some cases of placenta accreta spectrum or intractable post-partum haemorrhage in which case the injury can be repaired in stages after controlling the bleeding.

The repair should be done by urologist or urogynaecologist and is usually done in one or two layers with non-locking sutures. Injuries >2 cm require a 2-layer closure. Polyglactin suture (Vicryl) 2-0/3-0 or Monocryl 3-0/4-0 should be used. For a two-layer technique the first layer closes the mucosa and muscularis and the second layer closes the serosa. The repair should be checked with at least 300 ml of saline with or without dye (e.g., methylene blue), which is instilled into the bladder through a transurethral Foley catheter.

If leakage is present through sutures, a urologist should be requested to attend. A top-up layer of overlapping sutures can be considered to achieve a watertight closure. The effectiveness of the repair should be confirmed by a further bladder- filling assessment and/or cystoscopy.

The site, size and grade of the injury should be clearly documented in the operative notes, marked on a diagram, clinical photography, if possible, as well as the details of the surgeon performing the repair and the technique used.

Post-operative:

An indwelling transurethral catheter should be used for at least 10 to 14 days. If an additional abdominal drain is used to identify urinary leakage in the pelvis this can be removed within 48–72 hours if the output remains minimal. If there is high volume output, consider sending a sample of the fluid for assessment of creatinine to compare to plasma levels and/or radiological imaging of the urinary tract.

Cystogram to be arranged in 14 days with Urology input in Royal Gwent Hospital, as trial without catheter (TWOC) is arranged by Urology depending on the results of the cystogram.

Delayed identification of bladder injury

A bladder injury that was not identified at the time of Caesarean or where

the primary repair has been unsuccessful will usually present clinically in the early postoperative period.

Signs can include:

- Drainage from the surgical incision
- Increased output from surgical drains
- Vaginal leakage of urine
- Abdominal distension secondary to ileus or urinary ascites
- Oliguria

A CT cystogram can be used to confirm the diagnosis. Any delayed or secondary repair should be performed by a specialist in urology.

References:

1. Pal, M; Bandyopadhyay,S. Cesarean bladder injury – obstetrician's nightmare. Journal of Family Medicine and Primary Care: September 2020 - Volume 9 - Issue 9 - p 4526-4529

2. Zelivianskaia, A; Bradley, S; Morozov, V. Clinical Opinion: Best Practices for Repair of Iatrogenic Bladder Injury. AJOG Global Reports: August 2022

3. Vaidya B, Chaudhari M, Parmar D, Chaudhari V, Daginawala T, Shah R. Bladder injuries during obstetrical and gynecological surgeries. Int Surg J. 2017;4:2177–80

4. Glaser, Laura M. MD; Milad, Magdy P. MD, MS. Bowel and Bladder Injury Repair and Follow-up After Gynecologic Surgery. Obstetrics & Gynecology: February 2019 - Volume 133 - Issue 2 - p 313-322

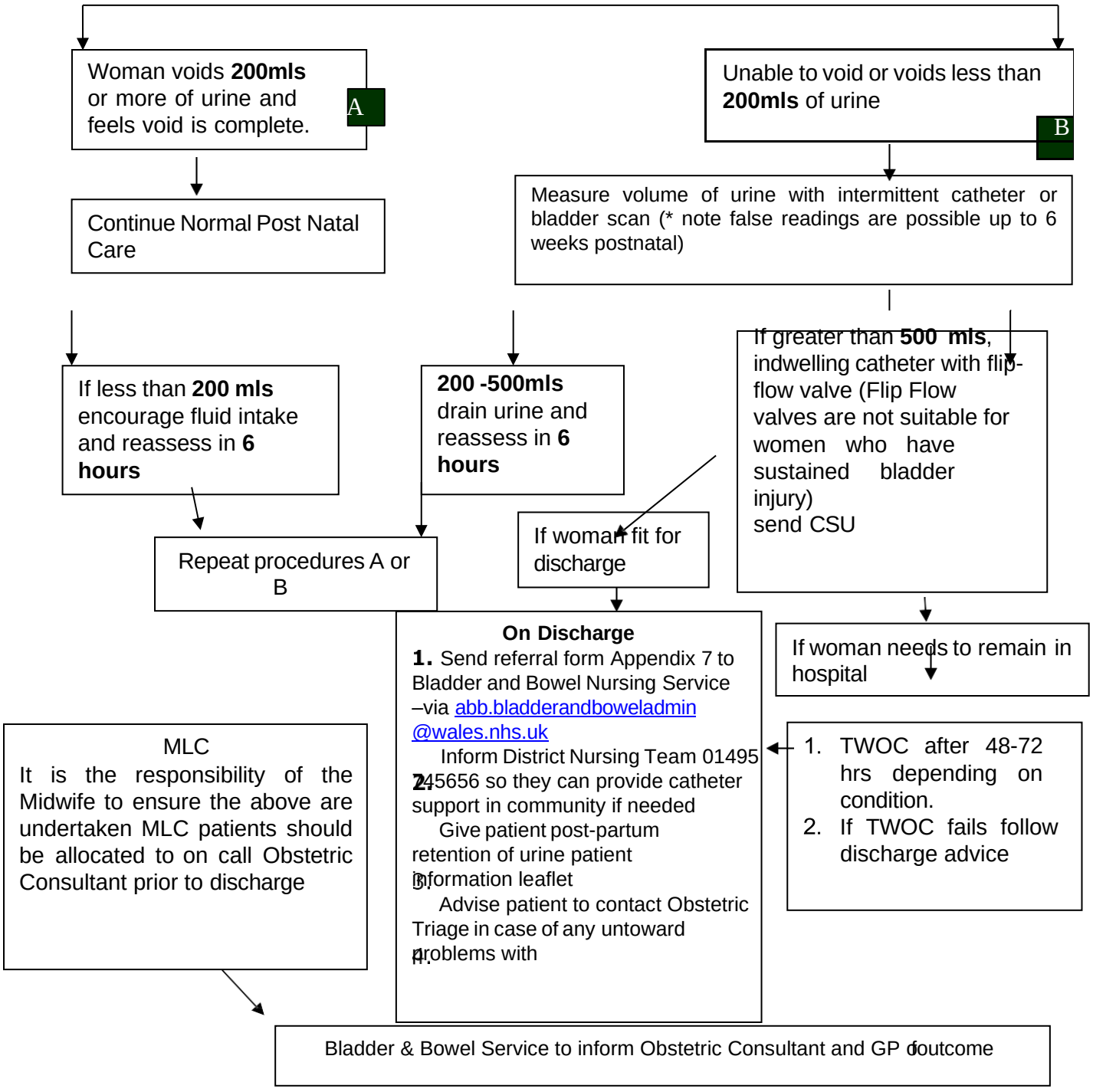
5. Rashid TG, Revicky V, Terry TR. Caesarean bladder and ureteric injuries in the UK. Journal of Clinical Urology. 2014;7(5):318-322. doi:10.1177/2051415814533108

APPENDIX 1

POST PARTUM BLADDER CARE

After **ALL** births urine output (first void) needs to be measured and documented. If the woman is unable to pass urine within 4-6 hours of last void or removal of urinary catheter try conservative measures e.g. warm bath, running tap, analgesia, encourage fluid intake (recommended fluid intake 2 litres in 24 hrs.) **Reassess in 2 hours.**

AT **6 HOURS AFTER LAST INTRAPARTUM VOID** or REMOVAL OF URINARY CATHETER



Appendix 2

Maternity Catheter Discharge Flow Chart/Pathway

Patient going home with a new catheter?

ALERT: DOES THE PATIENT REALLY NEED THIS CATHETER? IF YES FOLLOW THE PROCESS

↓

Short term material catheter (PTFE/ Brown)
*maternity patients can go home with short term catheter

↓

- Complete referral and contact D/N Tel: 01495 745656
- Complete catheter care bundle and Catheter Passport and give to the patient
- Complete Continence Appliance Prescription (CAP) referral form and email to abb.bladderandboweladmin@wales.nhs.uk
- Any queries Monday to Friday excluding Bank Holidays ring 01633 744286 between 8.30am and 4.30pm

↓

Basic patient education for discharge

- When to empty catheter bag
- How to empty catheter bag
- How to attach night bag
- How to store the night bag
- Importance of catheter hygiene
- How to use a fixation device
- How to use a catheter valve
- Advise patient catheter will remain in-situ for up to 14 days
- Give the retention of urine letter/information to women

↓

Give patients the following products on discharge

- One long term Catheter Flip
- flow valve
- Catheter night bag stand
- One leg and one night bag 10
- ml Water for injection 10 ml
- Syringe x 2 Lubrication gel
- Refer to DN 01495 745656, complete referral to Bladder and Bowel Nursing Service Appendix 6

*Flip Flow valves are not suitable for women who have sustained bladder injury

Appendix 3 - Patient Letter for Physiotherapy

Dear

During pregnancy and childbirth, your pelvic floor muscles which support the pelvic organs and help to maintain continence, are stretched and may become damaged. This can leave the muscles very weak and cause some women to leak urine when they sneeze, cough, lift, or when exercising. Some women may also experience other bladder or bowel symptoms. It is very important that you strengthen weakened pelvic floor muscles after having your baby, as they provide support to the pelvic organs and help to prevent any leakage.

A midwife or physiotherapist will give you a leaflet on pelvic floor exercises and explain how to do them before you leave hospital. The exercises are aimed at improving the strength of your pelvic floor muscles and therefore help to reduce the risk of potential problems arising.

As part of our support services, women who have either had:

- a third degree tear
- a fourth degree tear
- a baby weighing more than 4.5kg (10 lbs) after a vaginal delivery
- problems with their bladder or bowels

are routinely referred to the women's health physiotherapy service.

A letter will be sent to you inviting you to contact the Physiotherapy service to arrange an appointment to attend a physiotherapy appointment to review your progress.

At your appointment you will be seen by a female women's health physiotherapist in a private room. You will be given an opportunity to discuss any problems you are experiencing and you will be offered a vaginal examination to assess your pelvic floor muscles.

It is essential to attend the clinic even if you do not have any problems at the time, as symptoms may develop in the future if weak pelvic floor muscles are not strengthened.

If you have any questions or concerns regarding pelvic floor exercises, your bladder or your bowels, you can ring and leave a short message for a women's health physiotherapist on 01633 238997. Please include a daytime telephone number so that we can ring you back.

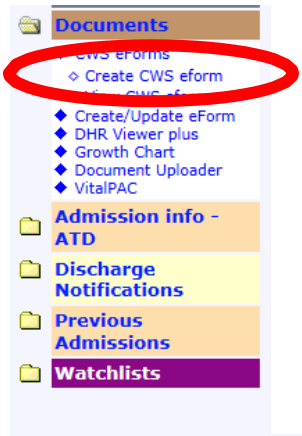
In the meantime, your midwife will be happy to answer any questions that you may have about the contents of this letter.

Midwife signature _____

Appendix 4

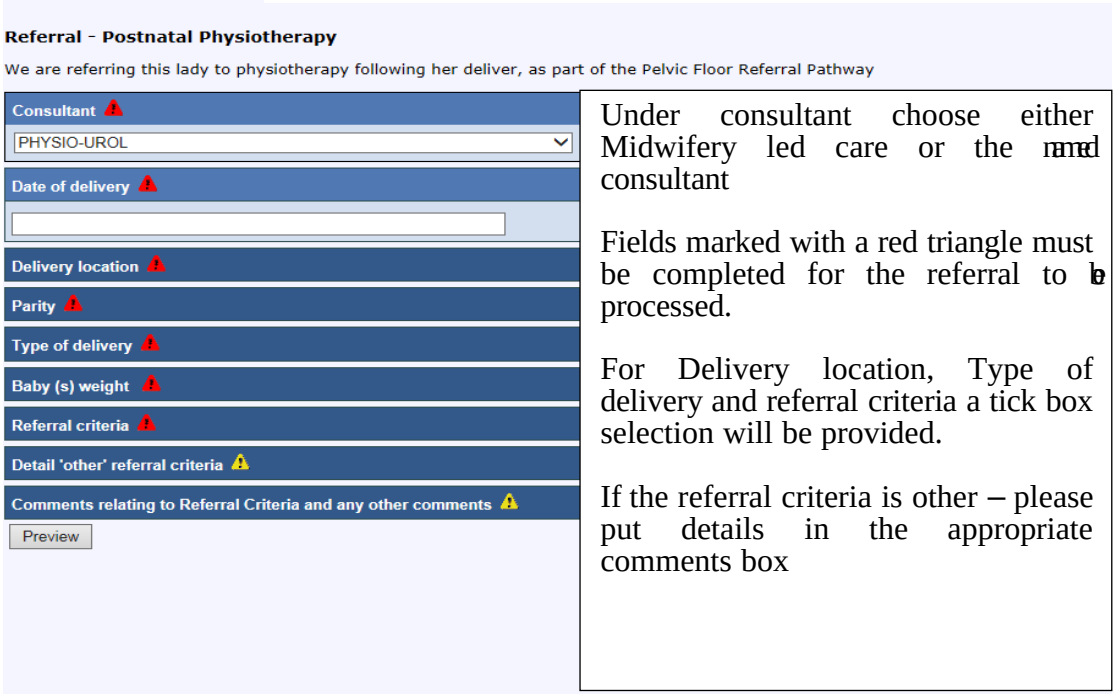
Pelvic Floor Pathway – E CWS referral form process

The referral form can be found under the "**create CWS eform**" under documents once the patient CRN has been inputted



In the search bar search

"Postnatal Physiotherapy" and select the referral form



Under consultant choose either Midwifery led care or the named consultant

Fields marked with a red triangle must be completed for the referral to be processed.

For Delivery location, Type of delivery and referral criteria a tick box selection will be provided.

If the referral criteria is other – please put details in the appropriate comments box

Then click the **"preview"** button.

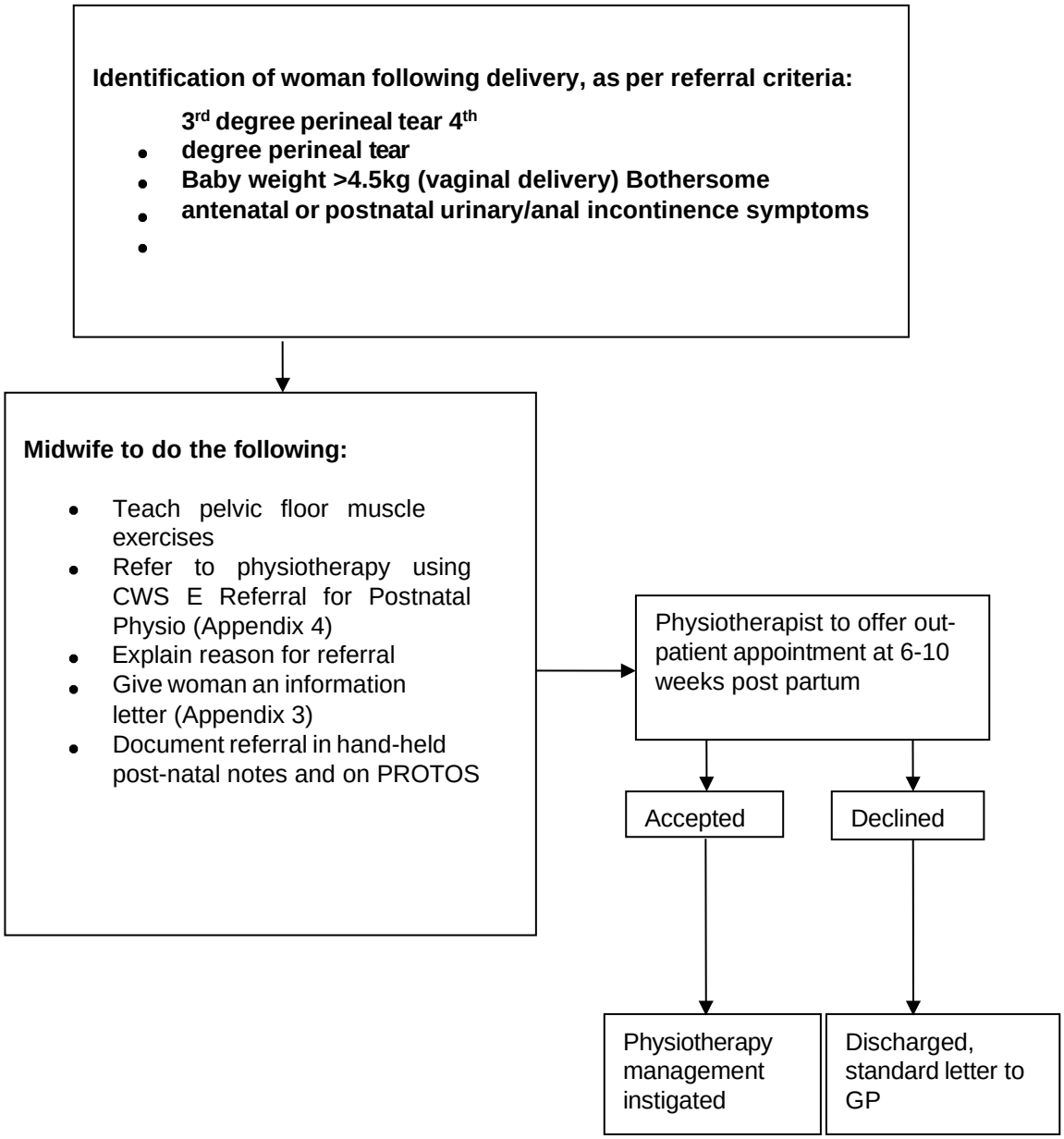
This will then give you an opportunity to preview the form and amend if necessary.

Once completed press **"Save"** and the referral will be sent to the Physiotherapy department and a copy will be visible on the patients CWS page.

This new form allows us to have an audit trail for these referrals.

Appendix 5

Pelvic Floor Referral Pathway Algorithm



Appendix 6

Referral to Bladder & Bowel Nursing Service in the Event of Post Natal Retention Tel: 01633 744286 Email: abb.bladderandbowelappliances@wales.nhs.uk	GIG CYMRU NHS WALES — Bwrdd Iechyd Prifysgol Aneurin Bevan University Health Board

NAME					
ADDRESS					
DOB					
UNIT NO.		TEL. NO.		Risk to lone worker	
GP					

Referring midwife		Ward Contact tel	
Reason for referral		Planned discharge date	
Community midwife		Date Referred	

DELIVERY DETAILS				
Date of delivery			Type of delivery	
Has there been any bladder injury during delivery?	**YES** To be discharged on catheter continuous drainage Follow up and TWOC to be arranged in hospital	**NO** To be discharged with catheter valve management. Follow up and TWOC by Bladder & Bowel Nursing Service	Allergies	
			Reaction	
			Past Medical History	

Equipment details checklist to be given to patient on discharge							
Catheter x1 Please state size ch		10ml water for injection		Night Bag x10		Leg Bag x2	
Anaesthetic Lubricating Gel (Instillagel) x1		Night Bag Stand		Retainer Strap		Catheter Valve	

DISCHARGE CHECKLIST

Teach patient/carer catheter care	☐
Give and explain patient information leaflet	☐
Complete Catheter passport and give to patient	☐
Give catheter equipment supplies for at home (see above)	☐
Refer to District Nurse 01495 745656	☐
Email this referral form to abb.bladderandboweladmin@wales.nhs.uk	☐

Appendix 7

Postpartum retention of urine and discharge information sheet

We hope that the information provided in this leaflet will support you and help address any concerns you may have.

What is retention of urine?

Post-partum urinary retention means that you couldn't pass urine after your delivery and the urine was retained in your bladder. We don't really know why this happens, it can happen to anyone and it is impossible to predict, however its occurrence is rare. If this problem goes unrecognised the bladder will over distend, leading to increased risk of bladder damage. This is why we need to question you regularly about how much urine you are passing, what the urine flow is like and to keep measuring your urine output. It you have not passed urine properly within 6 hours your bladder may be scanned to measure the retained urine.

Efforts will be made to help you empty your bladder by running water, bath/showers, offer a pain killer. If you are still unable to empty your bladder then a Foley indwelling catheter will be inserted to drain your bladder through the tube. Your urine input and output will be monitored and repeat trials to remove the Catheter will be attempted, if these attempts fail you will be re-catheterised and sent home with the catheter and valve (to open and close) and drainage equipment. The next step is that you will need to be taught intermittent self catheterisation by a specialist nurse at home and once everything has settled, including swelling, fluid retention and pain. It is important to wait until the time is right to finally remove the catheter and teach you to catheterise. Once you have learned this technique your bladder will begin to regain more normal function and soon you will be able to stop using the catheters to empty as your bladder resumes normal function.

Going home with your catheter

We understand that this is a worrying time for you after the delivery of your baby and the idea of learning to catheterise yourself is daunting…. but it is not as bad as it sounds.

Once you have been discharged from hospital with a *urethral catheter* in place, you will now fall under the care of the continence specialist nursing team and the community midwifery services. The continence nurse will contact you via telephone explaining the service, on the day that we receive a referral from the delivery ward.

A continence nurse will then visit you at home within 7 days of discharge, to explain *intermittent self-catheterisation* and check that all is okay with your *catheter*. We will be able to give you the date and name of the nurse who will be teaching *intermittent self- catheterisation*. This should take place within approximately 2 weeks following discharge.

Intermittent self-catheterisation is a more natural way for postpartum ladies to manage urinary retention. Intermittent self-catheterisation is taught after the indwelling catheter is removed, this is the best treatment for bladder retention. This also allows the patient to be able to fully empty the bladder if they have problems with complete emptying, eliminating re-admission to be re- catheterised. Some postpartum women will not need to perform *intermittent self-catheterisation for long or at all* once taught. Whereas some find they may need to catheterise from between 1-5 times daily for a period of time after the removal of their *catheter until normal bladder symptoms resolve*.

You will remain under the care of the continence service during this time, but may also require input from Urology or Urogynecology Services.

Your points of contact for support with your *catheter* and *intermittent self-catheterisation*, will be your Community Midwife, District Nurses and the Bladder and Bowel Nursing Service.

Bladder and Bowel Specialist Nurses Contact Information

Telephone number – 01633 744286
A nurse will be available from - 08:30-16:30 Monday – Friday. We are closed bank Holidays. abb.bladderandboweladmin@wales.nhs.uk

Glossary

Urethral Catheter – is a hollow tube inserted in the bladder to drain urine.

Intermittent catheterisation - is the insertion and removal of acatheter to empty the bladder.

Appendix 8

Examples of equipment used with catheters

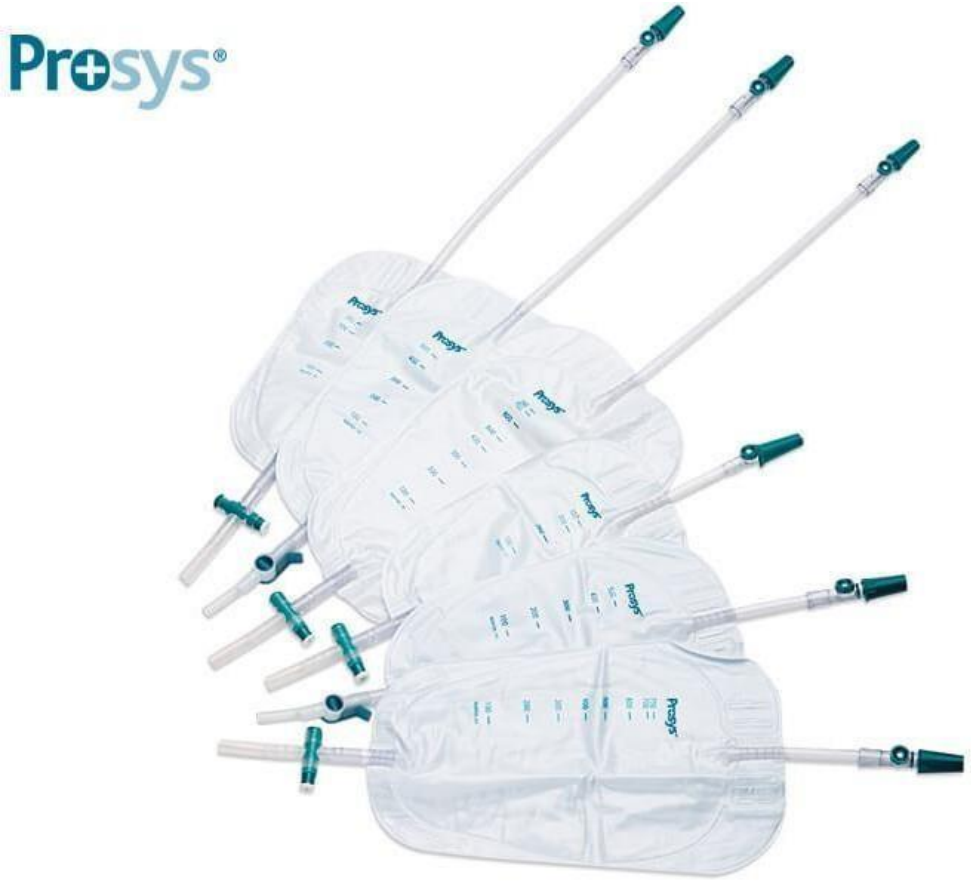
A Catheter Valve is suitable for patients using either urethral or suprapubic catheters. They need to be changed weekly. They attach to the end of the catheter instead of urine drainage bags. Patients must be reminding to empty the Catheter 4 hly during the day and they connect directly to the night bag for overnight drainage.

When used from the start the Catheter Valve can help to maintain bladder tone and capacity.[1] The flushing action may also reduce the risk of infections and blockage.[2]

ADVANTAGES

- Easy to open lever tap
- Empty bladder at own convenience
- Helps maintain bladder tone and capacity

Urine Drainage bags come in various sizes and there are overnight bags and leg bags used for the day. When using a valve only the overnight drainage bag will be required this holds a larger volume of urine.



A catheter retainer / fixation strap prevents movement /pulling and friction