Dignishield Stool Management Systems

A Learning Resource for ICU and SHDU Nursing Staff

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Introduction

- Stool management systems are temporary containment devices, indicated for bedridden or immobilised incontinent patients, with little or no bowel control, who have a liquid or semi-liquid stool i.e. 3 or more episodes of faecal incontinence in 24 hours or stool type 6 or 7 as per Bristol stool chart
- They are also indicated for patients with severe burns to manage their bowel function, promote healing of genital, perineal or anal skin grafts and to maintain infection control following plastic surgery
- They are designed to safely and effectively divert faecal matter, protect patients' wounds from faecal contamination and to reduce both the risk of skin breakdown and spread of infection
- They should only be inserted once all other faecal incontinence management alternatives have been considered

Indications for use

- To reduce the risk of skin breakdown
- To reduce the risk of spread of infection
- To protect wounds, surgical sites and burns
- To improve patient comfort
- To promote patient dignity
- To assist with faecal management e.g. burn injured patients

The device should not be used

- Beyond 29 days. If the device is needed for longer than 29 days the tube must be changed
- For patients with solid or semi-formed stools
- For patients who sit out in a chair for long periods of time

Limitations for use

If the following occur whilst the stool management system is in situ, inform medical staff so that the patient can be reviewed immediately

- Persistent rectal pain
- Rectal bleeding

- Abdominal distension
- Excessive leak of stool around the device
- Loss of anal sphincter muscle tone – this could lead to temporary anal sphincter dysfunction
- Pressure necrosis of rectal or anal mucosa
- Signs and symptoms of infection and inflammation around the anus
- Bowel obstruction

Contra-indications for use

- Refer to the pre-insertion checklist on page 4
- When completing this checklist, the person undertaking the assessment must be able to answer **TRUE** to **ALL** of the questions below in order to use the stool management system
- **Checklist response for spinal injured patients** – if the response is **FALSE** i.e. the patient does have a spinal cord injury, please seek advice from a specialist spinal unit. The stool management device is contraindicated in patients with spinal cord lesion at T6 or above because of the risk of autonomic dysreflexia

Cautions

- Caution must be taken when considering patients with thrombocytopenia and/or clotting disorders and individuals taking anticoagulant medication
- Close attention must be exercised with the use of the device in patients who have inflammatory bowel conditions → seek medical advice from colorectal nurses/clinicians

Consent

- If the patient has capacity → explain the procedure and obtain consent
- If the patient lacks capacity → complete the Adult With Incapacity form

Before inserting the device the following must be checked

- A digital rectal examination must be performed to rule out the possibility of faecal impaction. The device can be inserted once the faecal impaction is removed
- A digital rectal examination may also confirm presence or absence of anal tone, as poor or absent tone may increase leakage around the device or may contribute to the inability to retain the device
- To avoid injury to the patient, do not insert anything into the anal canal whilst the device is in place. Remove the device prior to insertion of anything into the anal canal e.g. suppositories

Pre-insertion Checklist for Dignishield Stool Managment System

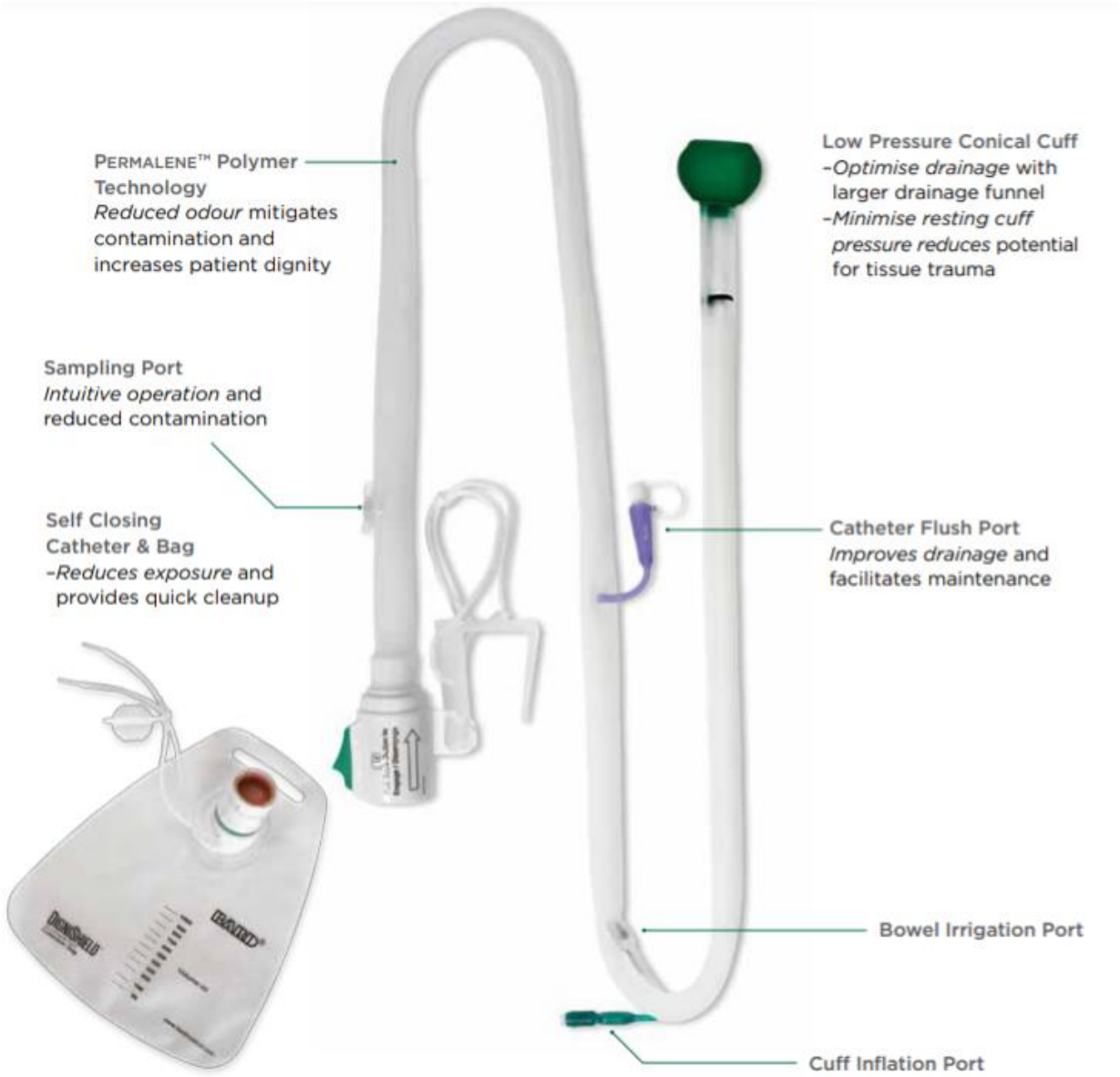
- The person undertaking the assessment must be able to answer **TRUE** to **ALL** of the questions below in order to use the stool management system
- Stool management systems are expensive and by assessing the patient before opening the packaging, unnecessary waste will be avoided

Assessment	True or False	Sign
The patient is incontinent with liquid or semi-liquid stool type 6 or 7 as per Bristol Stool Chart		
The patient is over 18 years of age		
The patient is not sensitive or known to have had allergic reactions to any component within the kit i.e. silicone		
The patient has not had lower large bowel or rectal surgery within the last 12 months		
The patient does not have suspected or confirmed rectal mucosal impairment		
The patient does not have any rectal or anal injury		
The patient does not have a confirmed rectal/anal tumour or stenosis or stricture		
The patient does not have haemorrhoids of significant size and/or symptoms		
The patient does not have faecal impaction – perform PR check to confirm		
The patient does not have any in-dwelling or anal device e.g. rectal thermometer or delivery mechanism, or suppositories/enema in place		
The patient does not have a spinal cord injury *		
Tick **one** of the following □ The patient has capacity and agrees to the procedure **OR** □ The patient lacks capacity and an Incapacity Form is completed		

* If **FALSE** i.e. the patient does have a spinal cord injury, please seek advice from a specialist spinal unit. The stool management system is contraindicated in patients with spinal cord lesion at T6 or above because of the risk of autonomic dysreflexia.

Dignishield system

- The Dignishield system consists of a catheter tube assembly, a 60ml syringe, a collection bag, a syringe of lubricating jelly, a biological odour eliminator and a tube clamp
- The device has **no** components made of natural rubber latex and is also MRI safe



Equipment needed and patient preparation

Equipment needed

- Dignishield kit – this contains the catheter tube, collection bag, a 60ml syringe, syringe of lubricating gel and odour eliminator spray bottle. The device has no components made of natural rubber latex.
- Disposable gloves and apron
- Continence pad
- Gauze swabs
- 45ml tap water (room temperature)

Patient preparation and procedure

- Explain the procedure to the patient
- Create privacy
- Position the patient in the left lateral position with knees flexed
- Wash hands and put on disposable apron and gloves
- Place continence pad under the patient's bottom
- Examine the perianal area
- Undertake digital examination
- If hard, impacted or stool is present – do not proceed with inserting the dignishield device
- If any other problems are observed e.g. pain, ensure the patient is reviewed by the medical team before proceeding
- If liquid or semi-liquid stool is present or rectum is empty, proceed with inserting the dignishield device
- Remove soiled gloves and wash hands
- Next explain and discuss the insertion procedure with the patient and refer to the following steps on the next page

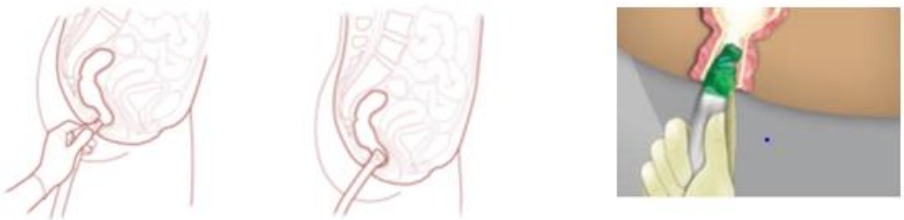
Directions for use

1. Deflate the cuff → remove all air from the cuff using the syringe provided

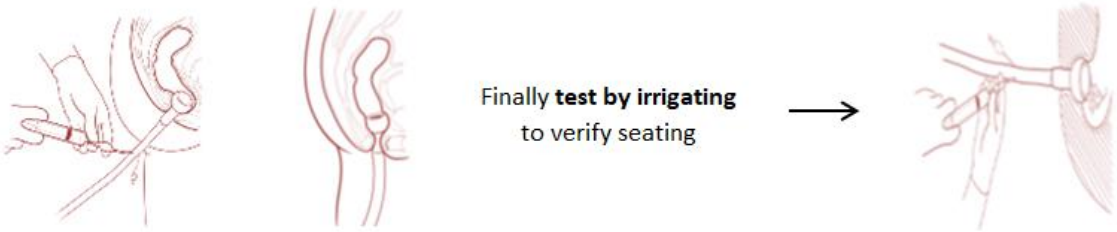
2. Flatten and fold the cuff

   Flatten the cuff and then fold the upper right corner down to the bottom of the cuff in a 45° angle. This creates a leading edge for easy insertion. Next apply lubricant to the cuff

3. Insert the cuff into the rectal vault



4. Inflate the cuff with the syringe containing 45ml water



Daily device maintenance

- Flush the catheter using the **purple FLUSH port** as needed to remove residual faecal matter from the tube. Note the amount of fluid instilled
- If the catheter tubing becomes obstructed with faecal matter → attach a filled syringe to the purple FLUSH port and depress the plunger
- The patient's bowel can be irrigated using the clear IRRIG port
- Check the position of the green transphincteric zone after repositioning patients to ensure the device is seated properly within the rectal vault
- Carefully align the tubing to prevent kinking, twisting or plugging
- Check the collection bag at least once per shift to monitor stool volume/drainage and record on fluid balance chart. Replace collection bag as needed
- Change the position of the drainage tube every 2 hours e.g. hang the bag on alternate sides of the bed or lie in the middle. Keep the collection bag below the patient's hips and off the floor.
- If stool volume decreases significantly → check the catheter for potential kinks/blockages
- If stool consistency becomes more solid the device should be removed

Cuff irrigation

- Fill the syringe with 45ml of tap water
- Attach the filled syringe to the **clear IRRIG port**
- Instil water by depressing the plunger
- Observe the flow of fluid down the catheter tubing
- If leakage occurs, the cuff may need to be repositioned and irrigation procedure repeated

Leakage

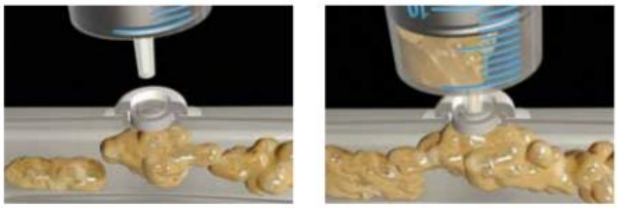
- Ensure catheter is not kinked, twisted or externally compressed. If this has not reduced leakage → follow the next step
- Using a 50ml syringe withdraw water from the **green INF port** to assess cuff fluid volume
- Reposition the patient and continue to withdraw water from the cuff. This ensures all water has been removed.
- Fill the syringe with 45ml of water and re-inflate the cuff using the **green INF port**. The cuff volume should not exceed 45ml of water. This will cause the cuff to become occluded
- Gently pull on the catheter tube to ensure cuff seating in the rectal vault
- Irrigate the bowel using the clear IRRIG port to determine if above steps have assisted in minimising leakage
- If leakage persists → deflate the retention cuff and remove the device. Wipe the unit with a disposable towel → then re-insert the device and follow the instructions for use

Stool sampling

If a stool sample is needed → collect the sample from the dedicated port on the tubing of the system rather than the bag. This helps to ensure that a recent sample is obtained.

- Uncap the white sample port
- Gently kink the catheter segment between the piston valve connector and the sample port
- Tilt or milk catheter to collect faecal matter
- Insert a slip-tip syringe into the sample port and draw appropriate sample
- Remove syringe and replace the cap on the port

RELIABLE SAMPLING
An integrated, easy-to-use sampling port reduces the possibility of contamination when taking specimens.



1. Pre-sampling
2. Sampling in progress

Bag replacement

- Ensure personal protective equipment is worn (including full face visor) prior to any risk of exposure to bodily fluids
- Grab the piston connector → pull back on the switch until the piston ejects from the collection bag
- Once the bag is removed → insert the bag plug into the collection bag hub
- Dispose of the collection bag as per hospital protocol

MINIMISED EXPOSURE
The DIGNISHIELD® Stool Management System is designed with a unique self-closing mechanism that reduces exposure to harmful microorganisms during bag changes.

1. Disengaged
2. Engaged

Removal/disposal of the Dignishield system

- Attach a depressed syringe to the **green INF** (45ml) **port** and slowly withdraw all water from the cuff
- Once the cuff is deflated → grasp the catheter as close to the patient as possible and slowly slide it out
- Dispose of the device as per hospital protocol

Odour control

- Flush the catheter using the **purple FLUSH port** at least once per shift. Milk the tubing as needed to drain any residual faecal matter into the collection bag
- Replace collection bag routinely. Secure the bag plug and remove from room.
- Check position of the green transphincteric zone after repositioning the patient and at regular intervals to ensure the device is seated properly within the rectal vault
- Irrigate the bowel with water using the **clear IRRIG port** to ensure proper drainage

Criteria for competence of using the stool management system

Discuss and identify

- Indications
- Contraindications
- Limitations
- Further considerations
- Demonstrates knowledge of relevant anatomy
- Demonstrates awareness of need to follow manufacturer's instructions for the specific device
- Demonstrates a knowledge of the Adult Incapacity Act
- Demonstrates accurate communication of pre/post procedure explanations in a way that the patient
- understands
- Demonstrates maintenance of the patient's privacy and dignity throughout the procedure
- Demonstrates safe infection control practices throughout the procedure to include standard and isolation
- procedures
- Demonstrates accurate record keeping
- Discuss any health and safety issues in relation to this procedure
- Demonstrate and understanding of the incident reporting process

Elements of competence to be achieved for ongoing care of the stool management system

- Check the position of the black line
- Knowledge and understanding of the importance of changing the tube's position
- Knowledge and understanding of when to change the collection bag
- Procedure for changing the collection bag
- Recording faecal output, to include stool amount, type and any significant change in stool type
- Observing the device for obstruction
- Irrigating the device
- Maintaining skin hygiene around the anal area
- Observing and maintaining skin integrity
- Knowledge and understanding of the barrier creams to help maintain skin integrity
- Knowledge and understanding of maximum length of time that the patient can sit out of bed
- Obtaining stool samples

Elements of competence to be achieved for insertion of the stool management system

- Demonstrates evidence of competence in accurate digital rectal examination to determine presence of faeces in the rectum
- Preparation and positioning of the patient
- Preparation of equipment
- Insertion of the tube
- Positioning of the balloon

Elements of competence to be achieved for removal of the stool management system

- Deflating the balloon
- Correct disposal of waste products as per hospital policy

Date competency completed _____ Signature of assessor _____

Stool Management System Maintenance Checklist → Check system at least every 4 hours

Date ___________ Date of insertion ___________ No. of days in situ ____ Device is not intended for use ≥ 29 days

Time	Black line Checked	BSS	Skin condition e.g. intact/red	Change bag position R/L/Mid	Irrigation Y/N Volume used	Check no kinks, solid stool or ext pressure	Sign

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