NG Tubes and other lines – prevention of removal (Adult) – Full Clinical Guideline

Reference No: CG-T/2023/148

Aim

To provide a framework for making and documenting decisions regarding the use of physical restraint (hand control mittens) and retention devices (nasal bridle/corgrip) in adult patients which balances the risks between the right to freedom against the right to be free from physical harm and is compliant with the Mental Capacity Act Code of Practice.

Purpose and Scope

To outline the use of physical restraint and retention devices in adult patients at significant risk of unintentionally removing tubes or lines without which there are life threatening implications. This is applicable to patients who are considered to be at risk of significant harm, particularly whilst they have impaired capacity to comprehend and manage the risks.

The devices covered within this guideline include hand control mittens and nasal retention devices.

There are various other management options which include forms of restraint not covered by these guidelines, these include:

- Mechanical restraint (indirect use of equipment e.g., bedrails, specialist seating, door access lockdown)
- Chemical restraint (use of pharmaceutical products)
- Technical surveillance (e.g., sensor pads)

These guidelines have been written to enable clinicians to ensure compliance with the statutory framework of the Mental Capacity Act whereby others have to make decisions on behalf of a patient when they lack capacity. It will facilitate an agreed assessment, decision-making and management process for the use of physical restraint and retention devices.

These guidelines:

- Apply to adults aged 18 and over.
- Ensure patients are individually assessed under the MCA framework and decisions made in the patients' best interests following said framework. This should include taking into account past wishes and beliefs, consulting all those concerned with the patient's welfare (including family members or Court Appointed Deputies).
- Minimise risk to patients and improve health outcomes.
- Maintain safety with minimal restriction.

Definitions

Physical Restraint:	Restricting a person's freedom of movement, whether they are resisting or not
Multi-disciplinary team (MDT):	All health care professionals involved in the decision-making process
IMCA (Independent Mental Capacity Advocate):	An independent person appointed to provide support and representation for the person who lacks capacity, to aide decision making, where the person has no-one else to support them
Hand control Mittens:	Mittens specifically manufactured for purpose of restricting movement of the hands
Nasal retention device:	Invasive retention device used to reduce the risk of a nasogastric tube being unintentionally removed, (AMT Nasal bridle or Avanos Corgrip)

Guidelines

Use of physical restraint devices is an ethically sensitive issue for the patient, their family and for staff. Such tensions must be managed alongside the need to provide optimal treatment and minimize harm to the patient.

The Mental capacity Act (2005) Section 6, requires that when restraining a patient, a clinician must satisfy two tests;

(1.) They must reasonably believe that the restraint is necessary to prevent harm to the patient who lacks capacity and.

(2.) The amount or type of restraint used and the amount of time it lasts must be a proportionate response to the likelihood and seriousness of that harm.

Prior to consideration of the use of a physical restraint or retention device, all less restrictive options must have been explored. These include 1:1 nursing, distraction therapy, and reinsertion of lines/tubes.

Physical restraint or retention devices must never be used as a substitute for any of these measures when there are other non-restrictive measures available to adequately manage the situation or need.

Consideration of the need for use of a physical restraint or retention device must ensure that such use protects the patient from greater harm. For this reason, they must only be considered for critical interventions such as airway management, enteral or parenteral feeding, medication administration and temporary pacing wires.

Some tubes and lines that patients may remove will be less critical due to other management options available e.g., urinary catheters where incontinence will occur, intravenous therapy where oral fluids may be taken with encouragement. In these situations, a physical restraint device should not be used.

If it is felt that the use of mittens or a nasal retention device is necessary to prevent harm, and there is reason to believe that the patient lacks capacity regarding the decision for the use of mittens or nasal retention device, staff are required to complete the 2 stage functional test of capacity in the MCA (2005) Code of practice (chapter 4).

If the patient is deemed to lack capacity, the best interest process should be followed. This initially must involve checking if the patient has an Advanced Decision to Refuse Treatment, if there is a Lasting Power of Attorney for health and welfare or if there is a court appointed deputy. If none of these exist, the best interest decision must be made considering the views of the multi-disciplinary team and involve the patient's family or friends. In the absence of family or friends a referral should be made to the IMCA service.

When an MDT decision has been taken to use a restraint or retention device, the following must be done.

1. Complete the assessment tool (appendix 1) to ensure that decision making for the use of therapeutic mittens and or nasal retention device encompasses the requirements of these guidelines.

2. Review the use of the physical restraint or retention device every 24 hours and/or if the patient's condition changes, this must be documented on the assessment for continued use of mittens and/or nasal retention device form (appendix 2)

3. Care plans must be commenced, using the trust templates included in:
   - mittens observation chart (appendix 3)
   - nasal retention device observation chart (appendix 4)

4. As part of the overall assessment process the patient / relatives should be provided with the patient information sheet (appendix 5)

Specific requirements for mittens and nasal retention device are detailed below.

For further advice the nutrition nurses can be contacted on extension 85775 (RDH) or nutrition consultant via switchboard.

Hand control mittens

Hand control mittens are a specific product designed to restrict the movement of one or both hands and used with patients who have removed essential lines/tubes. Only mittens manufactured for this purpose may be used. The Trust does NOT condone the use of bandaging to restrict hand movement in patients who remove tubes/lines.

- If the patient has neurological or musculo-skeletal impairments of the hand or wrist the use of mittens must be discussed with the medical and therapy teams to ensure appropriateness of use and agree timetable for wearing of mittens
- Staff must ensure they follow manufacturer's guidance with the use of mittens which includes implementing the use of buffers to the bed rails to avoid entrapment of the patient's hands.

- Cannulae must **NOT** be sited under mittens.
- Mittens should be applied in such a way that full movement of the fingers is not restricted and that the strapping is secure enough that it is difficult for the patient to pull the mitten off over their wrist. There should be enough space between the strap securing the mitten and the patient's wrist that circulation is not restricted – e.g., can just slide a finger under the wrist strap.
- The patient must be attended to hourly due to being unable to summon help using the nurse call.
- Where mittens are in use, patients may need full support with all activities of daily living, including toileting and eating or drinking, however if the patient is able to participate in these activities the mittens should be removed to allow this. Care plans should be written as required, in this regard. Care teams should be aware that irritations such as itchiness, which the patient now cannot manage independently, may result in obvious distress or restlessness. Patient needs will have to be anticipated on a more regular basis. Hourly interventions must be recorded on the mitten observation chart (appendix 3)
- The mittens must be removed at least three times per day to allow cleansing and inspection of the skin, to identify any potential problem areas or changes to skin integrity. Movement of fingers should be unimpeded within the mitten.
- Removal of mittens should be timetabled within the care plan, for example around visiting times, mealtimes etc. and recorded on the mitten observation chart.
- The use of mittens must be reviewed at least every 24 hours by the MDT and recorded on the assessment for continued use or mittens and nasal bridle form (appendix 2), their use may be discontinued at any time by any practitioner if: -
    - The patient becomes more agitated or distressed when wearing the mittens.
    - Deterioration in skin condition is observed.
    - Patient's condition/capacity changes and therefore they are no longer required.
    - Alternatives may need to be considered if the patient remains at risk of significant harm because of pulling at lines or tubes.
- The mittens are for single patient use only; if soiled they should be disposed of in clinical waste and new ones supplied.

Nasal retention device, Bridle or Corgrip

At QHB, insertion of a retention device is currently not available outside of ICU.

A nasal retention device is used to reduce the risk of a nasogastric tube being unintentionally removed; it is not a physical restraint device.

Appropriate nasal retention devices are AMT nasal bridle or Avanos Corgrip
Sutures and suction tubing are not appropriate methods of retaining an NG tube.

In order to reduce the risk of unintentional NG tube removal, the patient's Consultant and MDT are required to undertake an individual patient assessment and make a decision in the patient's best interest as to whether a nasal retention device or mittens would be more appropriate, this must be recorded in the medical notes.
If the patient is likely to pull out the nasal retention device, consider the use of hand control mittens in conjunction with the retention device.
In the situation of a generally confused patient, mittens may be a preferred option to reduce the risk of unintentional removal of NG tubes, cannula and other devices.

A nasal retention device should be considered if

- There is documented evidence of **3 or more** NG tubes having been unintentionally removed by the patient within a week, **and** mittens have been unsuccessful.
- The patient has a neurological problem where mittens may impair the recovery of function, and there is documented evidence of 3 or more NG tubes having been unintentionally removed by the patient within a week.

In the following situations a nasal retention device may be considered at the initiation of NG feeding

- ITU patients who are at high risk of displacing an NG tube during extubation due to agitation and where it is imperative that the NG tube remains in place, for essential medication, and removal/ reinsertion would potentially cause complications.
- Patients who have had an NG tube inserted to act as a drain during surgery where it is imperative that the NG tube remains in place, and removal/ reinsertion would potentially cause complications.
- Complex nutrition patients where it is imperative that the NG tube remains in place, and removal/ reinsertion would potentially cause complications (decision made after discussion with nutrition consultant)
- NG tubes which have required endoscopy or radiology to insert the tube, and there is reason to believe there is a risk of the tube being unintentionally removed.

Where a nasal retention device is the recommended option

- Complete the assessment tool (appendix 1)
- Ensure that INR is <1.3 and the platelets are >100 (INR <2.5 and platelets >50 for hepatology patients with consultant review).
- Referred to the Nutrition Nurse Specialists via extra med.
- The nasal mucosa close to the retention device should be checked at least three times per day and the score documented on the nasal retention device observation chart (appendix 4)

Removal of nasal retention device

To remove the nasal retention device due to agitation; using scissors, cut the cord on one side then pull the cord through from the other side and cut off the cord at the clip. To remove the device and NG tube, cut the cord on one side the gently pull the NG tube out.

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Documentation Controls

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Review Date:	November 2026
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UNIVERSITY HOSPITALS OF DERBY AND BURTON **Appendix 1**

NG Tubes and other lines – prevention of removal (Adult) – Assessment Tool

Patient label	Date:
	Ward:
	Initiated by

	Yes	No	N/A	Please Specify Supporting Information and Actions
1. Are the patients actions putting them at risk of significant harm e.g., Malnutrition, aspiration, extubation		Do not proceed		Identify Risks
2. Have other methods been tried? (i.e., distraction techniques, additional taping, re-siting, 1:1 nursing)		Do not proceed		**Identify techniques used:**
3. Does the patient have capacity to consent to the use of intervention e.g., hand control mitten, nasal retention device?				**If yes, go to Q 8 If no, complete capacity assessment and best interest documentation**
4. Has the UHDB capacity assessment and best interest documentation booklet been completed?				
6. Is there agreement from nominated next of kin following discussion?				
7. Has the plan of care including observations required been ▪ Discussed (patient, NOK, team) ▪ Formulated ▪ Documented				
8. Has an information leaflet been given to the patient/family/next of kin?				

Device/s selected

	Tick device	Date	Rationale for choice	Signature of Doctor
Mittens				
Nasal retention device				
Mittens and Nasal retention device				

Consultant signature…… Date…….

NB: Reassess every 24 hours or as soon as the patient's condition changes.

Appendix 2

UNIVERSITY HOSPITALS OF DERBY AND BURTON
NG Tubes and other lines – prevention of removal (Adult) - assessment for continued use of mittens and/or nasal retention device

Reassess the use of the device every 24 hours or if patient's condition changes			
Date	Review for continued use of **MITTENS / NASAL RETENTION DEVICE** (delete as appropriate)		
Use to Continue?	Yes		Agreed by ______ Doctor
	No		______ Nurse
Date	Review for continued use of **MITTENS / NASAL RETENTION DEVICE** (delete as appropriate)		
Use to Continue?	**Yes**		Agreed by ______ Doctor
	No		______ Nurse
Date	Review for continued use of **MITTENS / NASAL RETENTION DEVICE** (delete as appropriate)		
Use to Continue?	Yes		Agreed by ______ Doctor
	No		______ Nurse
Date	Review for continued use of **MITTENS / NASAL RETENTION DEVICE** (delete as appropriate)		
Use to Continue?	Yes		Agreed by ______ Doctor
	No		______ Nurse
Date	Review for continued use of **MITTENS / NASAL RETENTION DEVICE** (delete as appropriate)		
Use to Continue?	Yes		Agreed by ______ Doctor
	No		______ Nurse
Date	Review for continued use of **MITTENS / NASAL RETENTION DEVICE** (delete as appropriate)		
Use to Continue?	Yes		Agreed by ______ Doctor
	No		______ Nurse

Date	Review for continued use of **MITTENS / NASAL RETENTION DEVICE** (delete as appropriate)		
Use to Continue?	Yes		Agreed by ______________ Doctor
	No		______________ Nurse

Date	Review for continued use of **MITTENS / NASAL RETENTION DEVICE** (delete as appropriate)		
Use to Continue?	Yes		Agreed by ______________ Doctor
	No		______________ Nurse

Date	Review for continued use of **MITTENS / NASAL RETENTION DEVICE** (delete as appropriate)		
Use to Continue?	Yes		Agreed by ______________ Doctor
	No		______________ Nurse

Date	Review for continued use of **MITTENS / NASAL RETENTION DEVICE** (delete as appropriate)		
Use to Continue?	Yes		Agreed by ______________ Doctor
	No		______________ Nurse

Date	Review for continued use of **MITTENS / NASAL RETENTION DEVICE** (delete as appropriate)		
Use to Continue?	Yes		Agreed by ______________ Doctor
	No		______________ Nurse

Date	Review for continued use of **MITTENS / NASAL RETENTION DEVICE** (delete as appropriate)		
Use to Continue?	Yes		Agreed by ______________ Doctor
	No		______________ Nurse

Date	Review for continued use of **MITTENS / NASAL RETENTION DEVICE** (delete as appropriate)		
Use to Continue?	Yes		Agreed by ______________ Doctor
	No		______________ Nurse

UNIVERSITY HOSPITALS OF DERBY AND BURTON

Patient name: Hospital number	**Mittens Observation Chart** Date mittens placed on patient:

(Patient label)

Care plan

There is a risk of skin damage or loss of circulation due to the use of mittens

- Mittens should be removed during:
  - -personal care
  - -when visitors are present, to allow interaction
  - -an activity the patient can carry out independently
- Mittens must be removed **at least 3 times a day** to perform hand hygiene, skin integrity and circulation checks
- Cannulas must not be placed under mittens
- The securing strap must not be too tight i.e., a finger will fit between the securing strap and the patient's wrist

The patient is unable to use the nurse call button to summon help

- Check **hourly** for discomfort, toileting and hydration requirements, and repositioning.

Time plan for removal: e.g., mealtimes, visiting times

Date	Time	Evaluation & intervention taken	Signature and designation

Date	Time	Evaluation & intervention taken	Signature and designation

Appendix 4

UNIVERSITY HOSPITALS OF DERBY AND BURTON

Patient name: Hospital number (Patient label)	**Nasal Retention Device Observation Chart** Date device inserted:

Care plan

There is a risk of discomfort, damage, or erosion of the nasal mucosa

- Inspect nasal mucosa for signs of redness, soreness, erosion, or exudate a **MINIMUM** of three times per day and document on observation chart.
- Clean external nostrils at least 3 times per day with normal saline to prevent drying and excoriation

Ensure scissors are close to hand to enable removal of the nasal retention device should bleeding occur **(cut the cord on one side and gently pull it through from the other side)**

Nasal mucosa score	**Action needed**
1 = no redness	Maintain care and observation of the mucosa
2 = slight redness/soreness apparent	Reposition the NG tube and continue to monitor the mucosa
3 = erosion evident	Remove the nasal retention device

To remove the device cut one side of the tape (between the clip and the nose) and gently pull both the tape and the feeding tube out of the nose.

Date	Time	Nasal mucosa score	Action taken	Signature and designation

Date	Time	Nasal mucosa score	Action taken	Signature and designation

Appendix 5

Information for the use of devices to reduce the risk of tube or line removal

Some patients need specific supportive treatments in hospital e.g., feeding tubes; intravenous lines; tubes to support breathing etc. At times additional care is needed to maintain this vital support where patients feel it is an irritant and make attempts to remove tubes or lines.

Tubes may be placed to provide fluid, medications, or nutrition to a patient. Other tubes facilitate breathing, assist in maintaining heart rate, or support elimination. Restriction of a patient's movement is only considered when a patient attempts to remove tubing, puts them at risk of significant harm. This can often be because of restlessness or confusion.

The interventions that may be used are:

- Hand control mittens (a padded mitten applied to the hand)
- Nasal retention device (a special device to secure the nasogastric tube in the nose)

The nursing staff will have tried other methods to assist the patient to keep vital tubes in place. The above interventions are only used when the others have failed. The need for them will be reviewed daily. There is a guideline for staff to follow to ensure that they are used appropriately.

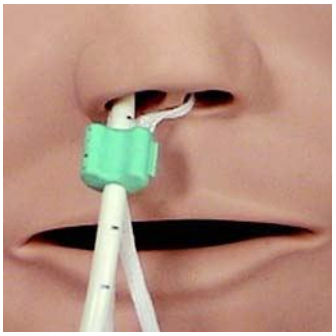
Whilst the above interventions are used you/your relative will be monitored closely by the nursing staff

Patient consent will be obtained if possible, otherwise the decision will be made by the team and involve relatives, in the patient's best interests.

The care team will make every effort to discuss the above interventions with relatives prior to their application. However, there may be occasions where intervention is required quickly, for patient safety. You will be informed as soon as possible of actions taken to support your relative's needs, and why.

If the mittens are used, it is important that they are removed regularly to check the skin and to give hand hygiene. This may be timed around visits so that they can be removed when relatives are visiting.

Nasal retention device



If a nasal retention device is used, the nurses will be checking your/your relative's nasal mucosa (inside of the nose) each shift for any sores. If there are any complications as a result of the nasal retention device e.g., bleeding if the nasogastric tube is repeatedly pulled on the– the device will be removed immediately.

If you have any questions about the above interventions, please speak to a member of the ward team.