Doncaster and Bassetlaw Teaching Hospitals
NHS Foundation Trust

Paediatric Acute Pain Policy

Assessment and management of acute pain in children and young people

This procedural document supersedes: PAT/MM 6 v.3 – Paediatric Acute Pain Policy - Assessment and management of pain in children and young people

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Executive Sponsor(s):	Karen Jessop - Chief Nurse
Author/reviewer: (this version)	Ailsa Woodhouse - Lead Pain Nurse Dr Raj McNab
Date revised:	September 2022
Approved by:	Drugs and Therapeutics Committee
Date of approval:	April 2023
Date issued:	July 2023
Next review date:	April 2026
Target audience:	Clinical Staff Trust Wide

Contents

Amendment Form

Please record brief details of the changes made alongside the next version number. If the procedural document has been reviewed **without change**, this information will still need to be recorded although the version number will remain the same.

Version	Date Issued	Brief Summary of Changes	Author
Version 4	September 2022	• Changes throughout the document, please read in full • References throughout	Ailsa Woodhouse
Version 3	7 January 2019	• Updated Trust name and logo throughout • References updated	Lorraine Robinson
Version 2	6 January 2015	• New Trust format • References updated • Changes throughout the document, • please read in full	Lorraine Robinson
Version 1	May 2012	This document has been reviewed without change.	Lorraine Robinson
Version 1 **(PAT/MM 6 v.1)**	December 2011	This document has been transferred from 'Treatment/Investigation' (PAT/T 27 v.1) to **'Medicines Management' (PAT/MM 6 v.1).** Title change. • Aim of document changed to purpose. • Acute pain team, 1st paragraph removed. 2nd paragraph amended, to include pain score >1. • Reference to Patient Group Direction No 75 included. • Inclusion of Equality Impact Assessment. • Inclusion of monitoring and compliance. • Duties and responsibilities changed - please read. • New section added – frequency of pain assessment. • RCN reference updated. • Hyperlink to RCN clinical guidelines/pain. • IV Paracetamol infusion included.	Lorraine Robinson
Version 1 **(PAT/T 27 v.1)**	January 2009	This is a new procedural document	Lorraine Robinson/ Michelle Veitch

2. INTRODUCTION

This policy has been written and updated to assist the practitioner caring for inpatient children with acute pain within Doncaster and Bassetlaw Teaching Hospitals NHS Trust.

The term child will be used throughout this policy to cover all infants, children and adolescents less than 18 years of age.

THIS POLICY IS NOT APPLICABLE TO NEONATAL SERVICES.

THIS POLICY IS NOT APPLICABLE FOR CHRONIC PAIN PATIENTS.

The relief of pain is the fundamental goal of health care professionals, and all patients, including children, have the right to expect the highest possible standards of care and pain management.

The goal of pain assessment is to ensure that effective procedures and processes are instituted to prevent or minimise pain. Pain assessment is a pre-requisite to optimal pain management in children and should involve the child, their parent/carer and the use of an age and context appropriate pain measurement tool.

There can be particular difficulties in inferring the sensory and emotional experience of pain in children, especially in young children. Children vary greatly in their cognitive and emotional development, medical condition, response to painful interventions and to the experience of pain, as well as in their personal preferences for care.

3. PURPOSE

The purpose of this document is to act as a resource for all clinical staff to improve the way in which they recognise, assess and treat pain in children. It aims to provide conformity of standards across the Trust for acute pain management in children.

4. DUTIES AND RESPONSIBILITIES

All health professionals providing care to children have a responsibility to learn the language of child pain expressions, to listen carefully to children's self-reports of pain and to attend to behavioural cues in partnership with the child's parent/carer.

4.1 Inpatient Pain Team

The Inpatient Pain Team are responsible for supporting staff in the clinical area where a child has a continued pain score of 3 or more despite analgesia, for more than 3 hours or if the child has a Patient Controlled Analgesia (PCA) pump.

In-patient pain team can be contacted:

DRI - Bleep 1449 Monday – Friday 08:00 – 16:00/Out of hours/Bank Holidays 2nd on call anaesthetist

BDGH - Bleep 3107 Monday – Friday 08:00 – 16:00/Out of hours/Bank Holidays on call anaesthetist via switchboard.

4.2 Registered Nurses, Doctors and Allied Healthcare Professionals

It is the responsibility of doctors, nurses and Allied Healthcare Professionals involved in the assessment and management of children's pain to understand and incorporate pain assessment into routine observations. Following assessment, appropriate management of pain must be undertaken and effectiveness evaluated within the hour.

4.3 Ward Managers

Are responsible for ensuring newly appointed staff receives training and awareness on polices, pain tools, documentation and audit. Ward managers are also responsible for monitoring practice and audit within their area of responsibility.

4.4 Healthcare Support Workers

It is the responsibility of healthcare support workers to use pain assessment tools with children, document scores and report scores of 3 or more to the registered nurse.

4.5 Ward Managers Beyond Children's Inpatient Areas

It is the responsibility of doctors, nurses and Allied Healthcare Professionals involved in the assessment and management of children's pain to understand and incorporate pain assessment into routine observations. Following assessment appropriate management of pain must be undertaken and effectiveness evaluated within the hour.

5. PROCEDURE

Pain Assessment

Assessment of a child's pain should be undertaken as soon as possible from admission or when the condition allows. Pain assessment should be a routine integral part of every child's care. Accurate and timely pain assessment is a key factor for improving pain management for children.

5.1 Pain Assessment Tools

Pain assessment tools should be used to determine the level of pain experienced by the child. The score obtained will determine the intervention required.

A suitable pain tool should be selected on admission based on the age, development and clinical condition of the child. It is important that continuity is maintained by using the same tool throughout the child's stay in hospital. Effective communication is therefore required to ensure that all staff involved in the child's care are aware of the selected tool.

The use of a pain tool must be explained to the child, if possible, and the parent/carer. This policy advocates the use of the following assessment tools:

- Smiley faces
- FLACC (face, legs, arms, cry, consolability)
- Verbal descriptive scale e.g. none, mild, moderate or severe pain (0-10). The numbers are purely for documentation purposes, the words are to be used when assessing pain.

It is imperative that the pain scores are clearly documented on the child's Paediatric Advanced Early Warning (PAWS) observation chart.

Pain assessment should be carried out:

- Using a validated pain assessment tool
- Observing the child's behaviour and physiological signs
- Involving the parent(s)/carer (where appropriate)
- Taking into account the contextual factors and the cause of pain

5.2 Frequency of Pain Assessment

General Assessment

All children will have their pain assessed/documented, alongside observations and recorded on the appropriate documentation, on admission to hospital and throughout their stay.

Changes in clinical observations i.e. increased heart rate, respiratory rate, blood pressure and decrease in oxygen saturations, may indicate the presence of pain.

Post-Operative Pain Assessment

1 hourly for 4 hours

4 hourly thereafter

Re-Evaluation of pain following action

Severe pain - documented evidence of action taken within 30 minutes

Moderate pain - documented evidence of action taken within 60 minutes

5.3 Behaviour

Changes in behaviour i.e. crying, facial expressions, bodily movements, and sleep patterns, may also indicate the presence of pain. Any changes in such behaviour should be discussed with the carer and documented in the child's notes.

5.4 Self-Report

Self-report is usually possible by 4 years of age but will depend on the cognitive and emotional development of the child. At 4 to 5 years of age child can differentiate 'more', 'less' or the 'same' and can use smiley faces assessment tool.

5.5 Paediatric Pain Assessment Tools – Used with Permission from Sheffield Children's NHS Trust Pain Management Team (2022)

Paediatric pain management has been recognised as inadequate and a contributing factor is a children's difficulty in expressing their pain to those taking care of them (RCN, 2009).

Clinical observations and changes in behaviour are important along with parent/carer involvement. It is essential pain assessment tools are used to enable pain management to be optimised.

Pain assessment tools used vary according to the child's age.

FLACC behavioural pain assessment tool (Infants and non-verbal patients)

Explain to the child and/or carer that you are going to monitor pain levels using this scale.

FLACC includes the categories of crying, facial expression, position of trunk, leg position, motoric restlessness and consolability and is reliably associated with pain. Each category is scored on a 0-2 scale and a total score of 0-10

FLACC PAIN SCALE (Infants and non-verbal patients)

Sheffield Children's NHS Foundation Trust

The Children's Hospital Charity.

	SCORING		
CATEGORIES	**0**	**1**	**2**
FACE	No particular expression or smile	Occasional grimace or frown, withdrawn, disinterested	Frequent to constant quivering chin, clenched jaw
LEGS	Normal position or relaxed	Uneasy, restless, tense	Kicking, or legs drawn up
ACTIVITY	Lying quietly, normal position, moves easily	Squirming, shifting back and forth, tense	Arched, rigid or jerking
CRY	No cry (awake or asleep)	Moans or whimpers, occasional complaint	Crying steadily, screams or sobs, frequent complaints
CONSOLABILITY	Content, relaxed	Reassured by occasional touching, hugging or being talked to, distractible	Difficult to console or comfort

Each of the five categories: (F) Face; (L) Legs; (A) Activity; (C) Cry; (C) Consolability; is scored from 0 – 2 which results in a Total Pain Score (F+L+A+C+C) between 0 and 10, which should be recorded on the observation chart.

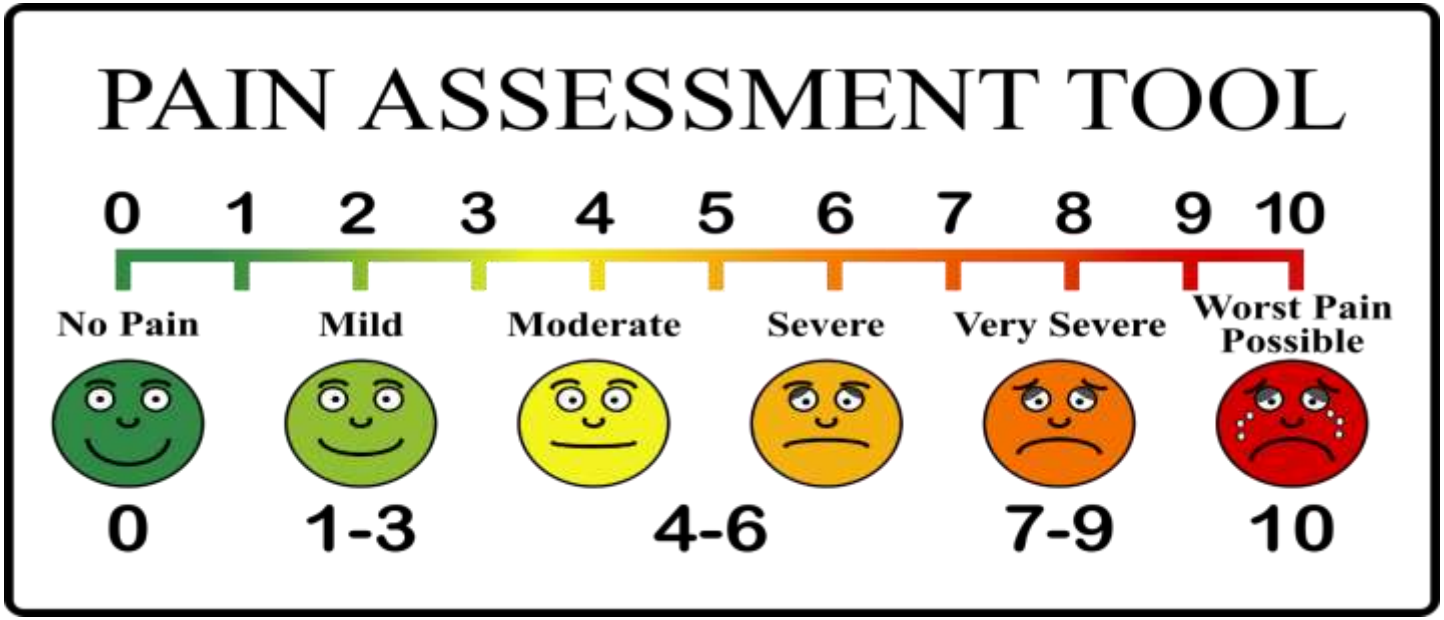
TOTAL PAIN SCORE	0 = no pain	1 – 3 = mild pain	4 – 6 = moderate pain	7 – 10 = severe pain

FLACC SCALE

Infants and Non – Verbal Patients

Self-Report Pain Measurement Assessment Tool (Patients aged 3 years and upwards)

Point to and explain to the child, that each face is for a child who feels happy because he/she has no pain (hurt, or whatever word the child uses), or feels sad because he/she has some or a lot of pain. Ask the child to choose the face that best describes how he/she feels, and record the appropriate number. Pain Score Range 0 - 10.



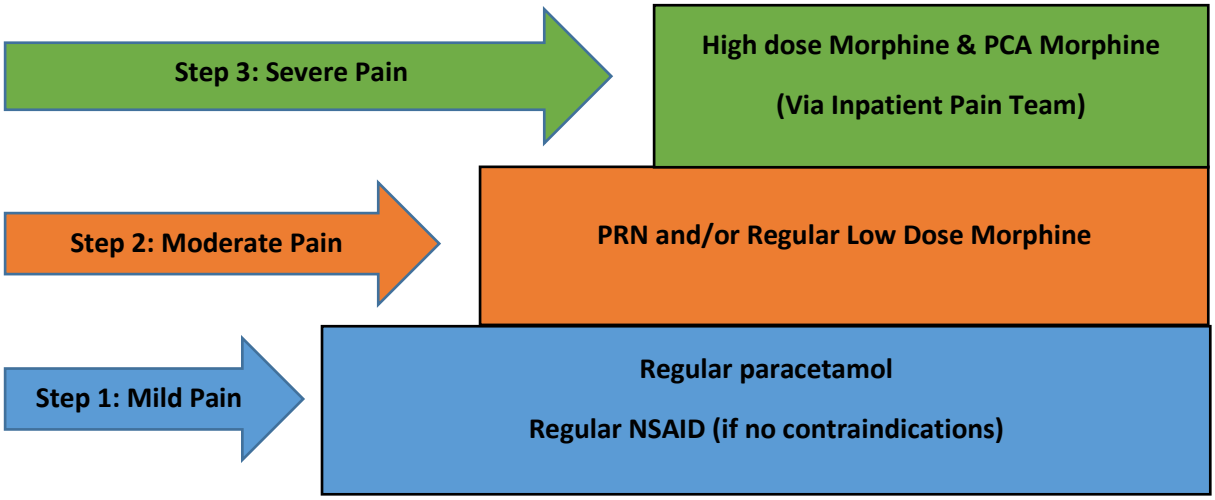
(www.publicdomainvectors.org, (15/03/2023))

5.6 Process of Pain Assessment

- Introduce pain tool of choice to child and carer on admission or as early as condition allows and document which pain tool (a, b or c) has been used
- Undertake and record pain assessment
- Monitor and document clinical observations for signs of pain
- Monitor and document changes in behaviour for signs of pain
- Administer intervention if required – e.g. pharmacological and/or non-pharmacological
- Evaluate intervention(s) by repeating pain assessment and document the score on the physiological observation chart
- Assess pain on movement and re-assess following interventions
- Always record pain scores and re-assessment score on physiological observation chart

5.7 Analgesic Options

Basic principles of analgesic treatment include type of analgesia, dose, timing and routes of delivery. Pain management encompasses the use of different types of drugs including opioids (i.e. Morphine) and non-opioids i.e. Paracetamol and Non-Steroidal Anti-Inflammatory Drugs (NSAID) such as Ibuprofen. The use of non-opioids can reduce the amount of opioids required (Verghase & Hannallah 2010) therefore reducing potential opioid side effects. Gold standard co-analgesia should be given regularly and for patients experiencing pain, should follow the analgesic ladder, to ensure that simple analgesic drugs are used first and are providing background pain relief, before opioids and more complex drugs are administered (Reaney 2019).



Step 1 – Analgesia for mild pain

Paracetamol

Please refer to Paracetamol dosing guidance as per current BNF for Children

Each child should be reviewed individually and caution should be exercised when prescribing at the extremes of expected body weight and/or deranged liver function.

NSAIDS (Ibuprofen)

Please refer to Ibuprofen dosing guidelines as per current BNF for Children

Each child should be reviewed individually and caution should be exercised in severe asthma, children with coagulation defects, children with renal dysfunction or immediately after surgery.

Step 2 – Analgesia for moderate pain

Morphine

Please ensure patients who are receiving opioids, e.g morphine are receiving regular paracetamol and a regular NSAID if no contraindications.

Morphine can cause respiratory distress therefore **Naloxone should be prescribed alongside all morphine.**

NALOXONE

Drug/Preparation	Age	Prescribed Dose	Frequency	Maximum Dose
Naloxone 10mg/5ml 100micrograms/ml (use for all doses <400micrograms)	1 month to 11 years	1 – 10 micrograms/kg	Repeat at intervals of 1 minute up to 5 times If no response then give a single dose of 100 micrograms/kg	Max per dose 200 micrograms Max dose 2 mg (milligrams)
	12 years – 17 years	100 – 200 micrograms	Repeat at 1 min intervals of 100 micrograms for up to 2 doses. Continue titrating up to max of 2mg until adequate response achieved. If still no response, give a further 2mg dose	Max dose 4mg

LOW DOSE ORAL MORPHINE

Drug/Preparation	Age	Prescribed Dose	Frequency	Maximum Dose
Low dose oral morphine 10mg/5ml or 100micrograms/ml (use for all doses <400micrograms)	1 year – 18 years	100-150 micrograms/kg (0.1-0.15mg/kg)	4-6 hourly	Up to 10mg
	6 –12 months	50-100 micrograms/kg	4-6 hourly	Start with low dose and titrate Monitoring required
	3 – 6 months (3 months = 52 weeks corrected age)	25-50 micrograms/kg	6 hourly	
	1 – 3 months (1 month = 44 weeks corrected age)	10-25 micrograms/kg	6 hourly	

<u>Step 3 – Analgesia for severe pain</u>

HIGH DOSE ORAL MORPHINE

Drug/Preparation	Age	Prescribed Dose	Frequency	Maximum Dose
High dose oral morphine 10mg/5ml or 100micrograms/ml (use for all doses <400micrograms)	1 year – 18 years	200-300 micrograms/kg	4-6 hourly	5-10mg Initially and titrate
	6 –12 months	200 micrograms/kg	4-6 hourly	Start with low dose and titrate. Monitoring required
	3 – 6 months (3 months = 52 weeks corrected age)	100-150 micrograms/kg	6 hourly	
	1– 3 months (1 month = 44 weeks corrected age)	50-100 micrograms/kg	6 hourly	

Morphine can cause respiratory depression. This is a greater risk for high dose Morphine and as such **Naloxone <u>must</u> be prescribed alongside high dose morphine.** (See above for doses)

5.8 Patient Controlled Analgesia with Morphine

Intravenous patient controlled analgesia (PCA) is one of the most effective methods to achieve optimal postoperative analgesia in adults and children (Plate & Goldstein 2012).

A PCA can be given to a child who is old enough to understand that they are in pain and that they will be in control of their own pain relieving medication.

The PCA will be programmed by an anaesthetist in the Recovery ward.

All registered nurses caring for patients receiving PCA must have completed their IV competency package and received training on the Fresanius PCA pump and completed the competency package.

Morphine can cause respiratory depression. This is a greater risk for IV Morphine and as such **Naloxone must be prescribed alongside PCA morphine.** (See above for doses)

Nausea and vomiting are a common side effect of prescribed morphine. Please ensure anti-emetics are prescribed.

5.9 Procedural Pain

Procedural pain has been described by children and families as the most feared and distressing component of medical care and the management of procedural pain requires preparation and distraction, in conjunction with timely analgesics (Core Standards for Pain Management Services in the UK, n.d.)

Pain should be assessed both before and after an intervention using a validated pain assessment tool appropriate for their chronological age and level of cognitive development that are documented within this policy.

Best practice dictates a multimodal approach combining psychological and non-pharmacological modalities to be used alongside analgesic agents.

Evidence is available to support the effectiveness of a wide range of analgesic agents through a variety of routes, allowing the clinician to choose an agent which best fits with the clinical need and timescale for performance of the procedure. These may include oral, intravenous, intranasal, transdermal, topical, transmucosal, rectal and inhalational routes. The key is allowing sufficient time for the chosen agent to reach its peak effect before commencing the procedure. Disruptive behaviour generated as a consequence of unmanaged anxiety, pain and distress may prolong the time required to complete the procedure.

Intranasal Fentanyl (Use in the Emergency Department only)

Guidance is available for the use of intranasal fentanyl within the ED department on the Intranet. **THIS IS FOR EMERGENCY DEPARTMENT USE ONLY AND NOT APPLICABLE TO INPATIENTS**

Nitrous Oxide (Entonox)

Nitrous Oxide commonly comes as Entonox, which comprises a compressed gas mixture of 50% nitrous oxide and 50% oxygen in a portable cylinder. It provides rapid analgesic onset and offset. Self-administration via a mouth piece, requires active co-operation on the part of the child and is generally suited to children aged 5 years and over.

The safe administration of Entonox requires a fully trained nurse competent in its use to be present and in accordance with the Patient Group Directive. Adequate training and audit compliance must be maintained to ensure safety of the delivery of Entonox in the Paediatric setting.

6. TRAINING/ SUPPORT

On commencement of employment staff working in areas that will be assessing pain of children will receive training in assessment and management. This will be in line with practice within the clinical areas.

The training requirements of staff will be identified through a training needs analysis. Role specific education will be delivered by the service lead.

The Inpatient Pain team will support additional training and educational needs as required.

7. MONITORING COMPLIANCE WITH THE PROCEDURAL DOCUMENT

The Senior Nurse (Ward Manager) in charge of each clinical area is responsible for ensuring that the standard of pain assessment in their clinical area is audited for compliance with this document at least annually. Action plans should be developed to address areas scoring <90%.

What is being Monitored	Who will carry out the Monitoring	How often	How Reviewed/ Where Reported to
Pain assessment is carried out	Clinical Educator/ Ward manager	Monthly via Releasing Time to Care Observation Audit	Ward meetings
Incidents relating to pain assessment and treatment	Ward Manager	On an individual basis	Via the Datix reporting system and reported to Clinical Governance

Complaints relating to poor pain management	Ward Manager and Matron	On an individual basis	Local Clinical Governance Group

8. DEFINITIONS/ABBREVIATIONS

Abbreviations	
FLACC	Face, Legs, Arms, Cry, Consolability
EIA	Equality Impact Assessment
PCA	Patient Controlled Analgesia
PAWS	Paediatric Advanced Early Warning
NSAID	Non-Steroidal Anti-Inflammatory Drugs
EIA	Equality Impact Assessment
BNF	British National Formulary

Definitions	
Neonate	An infant less than 28 days old. (NHS data model and dictionary)
Chronic Pain	Pain that persists or recurs for longer than 3 months. (WHO, 2020)

9. EQUALITY IMPACT ASSESSMENT

An Equality Impact Assessment (EIA) has been conducted on this procedural document in line with the principles of the Equality Analysis Policy (CORP/EMP 27) and the Fair Treatment for All Policy (CORP/EMP 4). The purpose of the EIA is to minimise and if possible remove any disproportionate impact on employees on the grounds of race, sex, disability, age, sexual orientation or religious belief. No detriment was identified. See Appendix 1.

10. ASSOCIATED TRUST PROCEDURAL DOCUMENTS

Equality Analysis Policy - CORP/EMP 27

Fair Treatment for all - CORP/EMP 4

Medical Equipment Training policy – CORP/RISK 2

Privacy and Dignity Policy - PAT/PA 28

11. REFERENCES

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APPENDIX 1 - EQUALITY IMPACT ASSESSMENT PART 1 INITIAL SCREENING

Service/Function/Policy/ Project/Strategy	Division/ Department	Assessor (s)	New or Existing Service or Policy?	Date of Assessment
Policy	Children & Family	Ailsa Woodhouse	Existing policy	15/3/2023

1) Who is responsible for this policy? Surgical Care Group / Children & Family Services

2) Describe the purpose of the service / function / policy / project/ strategy? Is it intended to benefit children and young adults to ensure their pain is assessed and treated

3) Are there any associated objectives? No

4) What factors contribute or detract from achieving intended outcomes? Pain not being assessed

5) Does the policy have an impact in terms of age, race, disability, gender, gender reassignment, sexual orientation, marriage/civil partnership, maternity/pregnancy and religion/belief? No

- **If yes, please describe current or planned activities to address the impact** [e.g. Monitoring, consultation] –

6) Is there any scope for new measures which would promote equality? No

7) Are any of the following groups adversely affected by the policy?

Protected Characteristics	Affected?	Impact
a) Age	No	
b) Disability	No	
c) Gender	No	
d) Gender Reassignment	No	
e) Marriage/Civil Partnership	No	
f) Maternity/Pregnancy	No	
g) Race	No	
h) Religion/Belief	No	
i) Sexual Orientation	No	

8) Provide the Equality Rating of the service / function /policy / project / strategy – tick outcome box

Outcome 1	Outcome 2	Outcome 3	Outcome 4

**If you have rated the policy as having an outcome of 2, 3 or 4, it is necessary to carry out a detailed assessment and complete a Detailed Equality Analysis Form.*

Date for next review: April 2026

Checked by: ***Ailsa E Woodhouse*** **Date: 25/9/2023**