Midland Burn
Operational Delivery Network

Guidelines for

Pain Management

For patients within the

Midland Burn Operational Delivery Network

Written: June 2010

Reviewed: November 2012

October 2014

Review Date: October 2016

Summary of Recommendations

1. Pain will be assessed in all patients treated by providers of burn care in the Midland Burn Operational Delivery Network (MBODN). This will be regardless of age, severity of injury or status as inpatient or outpatient.
2. Pain will be scored and recorded on a regular basis. Based on the score obtained, appropriate analgesia will be offered as per local guidelines.
3. Pain will be scored and recorded 30 minutes after an analgesic intervention is made (unless another time interval is more appropriate for that intervention).
4. Pain will be scored and recorded before, during and after all potentially painful procedures.
5. Itch should be scored and recorded on a regular basis. Based on the score obtained, appropriate treatment will be offered as per local guidelines.
6. Non-pharmacological pain management strategies should be used in addition to pharmacological methods whenever available and appropriate.
7. Analgesia therapy regimens should be based on a ‘step-down’ ladder rather than a ‘step-up’ ladder until analgesia is achieved.
8. Early and repeated consideration should be given to provision of regular opiate analgesia by the most appropriate route and method of administration.
9. All patients should receive regular doses of paracetamol unless contraindicated.
10. Consideration should be given to prescription of regular doses of a non-steroidal anti-inflammatory drug (NSAID) to augment analgesia provided by paracetamol unless contraindicated.
11. Early consideration should be given to prescription of gabapentin as a supplement to the pain and itch management regimen.
12. All patients must be assessed for side-effects of treatment and suitable therapeutic adjustments or interventions made.
13. The use of general anaesthesia for the patient during potentially painful procedures should be considered when appropriate analgesic options have been implemented and found to be unsatisfactory.

Scope & Purpose

The objective of these guidelines is to allow optimisation of pain and itch management for individual patients. Thus improving knowledge of patient perception of pain and itch on their pathway through burn care and enabling further development of pain and itch management guidelines.

These guidelines have been produced in order to aid clinical staff in the assessment and treatment of pain and itch experienced by patients with burn injuries. It is intended for use by all medical, nursing and AHP staff involved in burn care in the Midland Burn Operational Delivery Network (MBODN).

The guidelines are applicable to all patients treated by the MB ODN regardless of age, severity of injury or their status as an inpatient or outpatient.

Implementation of the guidelines should have minimal impact on staff workload or cost of service but will have a significant positive effect on quality of patient care. Improvement in the quality of pain and itch management strategies will reduce patient suffering, enhance psychological well-being and functioning and may reduce the anxiety felt by patients with regard to potentially painful clinical procedures. Good quality pain management in the acute phase of burn injury may reduce the incidence of chronic pain syndromes in the later phases of recovery. [6]

Development Process

The MB ODN asked for volunteers from all professional groups involved in burn care within the Network to join the analgesia guideline development group. These individuals were asked to collect and share all local guidelines and audit data available to produce a picture of the present state of 'analgesia practice' within the MB ODN. The group were then tasked with producing a guideline which would encompass this expertise and allow it to be shared throughout the MB ODN.

It became apparent early that uniform and repeated assessment of pain was not performed with the rigour that might be expected. Existing analgesia guidelines[1,2,3] used by individual services were similar enough to lead the group to believe that they could form the foundations of a MB ODN guideline but that they would need to be augmented by pain assessment data at an early point in the future.

It was decided that pain assessment tools were well established internationally and evidence from their use suggested that the specific tool used needed to be guided by the user and the patient concerned. Thus, no specific tool has been suggested by these guidelines but the need to use one appropriate to the patient is highlighted. Key times for measurement are suggested.

The group decided to produce a guideline which addressed the management of itch in addition to the management of pain. However, it was realised early in the process that itch management within the MB ODN and nationally was at a much earlier stage of development and in a phase of rapid evolution in comparison to pain management. Thus, this would need to be reflected in the aspects of itch management contained in these guidelines. However, it is the intention of the guideline group to review this area at the earliest appropriate time and in the meantime, to encourage local monitoring, assessment, scoring and treatment of itch.

Consensus throughout the group was sought and members were asked to seek the opinions of staff within their individual services. There was widespread agreement on many areas of assessment and treatment. The aim is that the implementation and subsequent repeated audit of these guidelines will produce data which help clarify the role of many drugs and interventions in pain and itch relief.

Once the guideline group had produced an agreed draft of the guidelines, they were circulated widely to stakeholders within the MB ODN. In addition, they were presented at the MB ODN Clinical Audit Meeting. After appropriate alterations were made, the final version was submitted to the MB ODN Management Board for ratification.

The MB ODN expects that these guidelines will be implemented immediately as they require minimal change in practise and have extremely limited cost implications. The MB ODN will produce a uniform audit tool for the individual services to complete. It is expected that individual services will perform an initial service audit soon after the release of these guidelines as a baseline and a repeat audit annually.

These audits are to include data on level of compliance with the guidelines and data to show effects of interventions suggested by the guidelines.

Review

These guidelines and associated audit tool were reviewed in October 2014 following their use and feedback from the network. It was felt that the recommendations' were still appropriate and only some minor clarifications were required.

Stakeholder Involvement

The following have been involved in the initial development of these guidelines:

Name	Profession	Paediatric/Adult	Location
Laura Ansell	Nurse	Paediatric	BCH
Louise Baines	Nurse	Adults	UHB
Tom Bowden	Anaesthetist	Adult	UHB
Jonathan Davies	Anaesthetist	Adults/Paediatric	NUH
Ursula Dickson	Anaesthetist	Paediatric	BCH
Rebecca Kirk	Physiotherapist	Adult	UHB
David Knights	Anaesthetist	Paediatric	BCH
Jane Leaver	Lead Nurse	Adult/Paediatric	MBODN
Emily McCutcheon	Physiotherapist	Paediatric	BCH
Gerwyn Rees	Anaesthetist	Adult	UHB
Vanessa Shearing	Psychologist	Paediatric	BCH

The membership of the development group represents a wide spectrum of professionals with extensive experience of burn care between them. Throughout the development of these guidelines, all individuals have been encouraged to liaise widely with their colleagues, in both MB ODN services and nationally.

It is the opinion of the development group that;

i) patients experience significant pain and itch at various stages throughout burn care;

ii) documentation of this pain and itch is generally poor and;

iii) Intervention to reduce pain and itch is variable and sometimes suboptimal.

These guidelines are an initial step towards better assessment, documentation and treatment of burn pain and itch.

There has not been specific patient involvement in the development of these guidelines however all members of the development group have direct patient contact in burn care. It is likely that there will be direct patient involvement in the audit process to direct future development of the guidelines.

The target users for these guidelines are all clinical staff involved in burn care in the MB ODN, specifically:

Burn surgeons (all grades)

Burn anaesthetists (all grades)

Pain Services (all professional groups and grades)

Burn nursing staff (all grades)

AHP staff (all professional groups and grades)

These guidelines have not been pre-tested but are an amalgam of nationally and internationally accepted tools and standards in addition to multiple local, regional and national guidelines for the assessment and treatment of pain and itch. It is anticipated that the impact of these guidelines will be assessed by audit within the first year of implementation.

Recommendations & Rationale

1. **Pain will be assessed in all patients treated within the MB ODN. This will be regardless of age, severity of injury or status as inpatient or outpatient.**

   Evidence will be present within the clinical notes that a pain scoring technique appropriate to the patient has been used and the subsequent score recorded.

   Accepted national and international standards already exist that mandate documented pain assessment. [4, 5, 6, 7, 8]

   This initial assessment should occur as soon after admission to burn services as feasible. This may be an appropriate time to decide, with the patient and their family, which pain assessment tool is most appropriate for use. Many pain assessment tools already exist that are well validated and in common usage. It should be noted that the choice of assessment tool may need to change during the period of patient care within the burn service. This will be guided by patient's wishes and medical condition.

   Pain may also need to be assessed in terms of impact on the psychological and social well-being of the patient and their level of functioning. This may become more apparent in the later rehabilitation phases when a 'functional' assessment may additionally be required.

2. **Pain will be scored and recorded on a regular basis. Based on the score obtained, appropriate analgesia will be offered as per local guidelines.**

   It is recommended that pain be scored and recorded each time that other physiological parameters are measured and recorded. For those patients seen in dressing clinic it is recommended that pain is assessed, as a minimum, on each visit

   Accepted national and international standards already exist that strongly recommend regular assessment of pain. [4, 6] There should be an individual pain management plan that is reviewed regularly.

   If not already decided, discussion should be undertaken with the patient and family as to the most appropriate pain assessment tool to use. It should be noted that the choice of assessment tool may need to change during the period of patient care within the burn service. This will be guided by patient's wishes and medical condition.

   Local guidelines for the provision of analgesic therapy already exist in several services but data as to their efficacy is sporadic. The combination of pain scoring with treatment will be the only way that the relative efficacy of the various regimens can be assessed.

3. **Pain will be scored and recorded 30 minutes after an analgesic intervention is made (unless a different time interval is more appropriate for that intervention).**

   This will assess efficacy of intervention and allow provision of further analgesia if required.[4] The exact time interval used will need to be judged according to the known speed of onset and offset of intervention used and the patient response to that intervention.[6]

4. **Pain will be scored and recorded before, during and after all potentially painful procedures.**

   This will help to guide provision of optimal analgesia for individual patients and assess efficacy of the various analgesic regimens used by individual service providers. [7] It may be appropriate to make the final assessment sometime after completion of the procedure to avoid the score being influence by the persisting effects of the drugs or intervention used e.g. opiate, midazolam, ketamine, presence of the healthcare professional providing intervention or therapy.

5. **Itch should be scored and recorded on a regular basis. Based on the score obtained, appropriate treatment will be offered.**

   It is recommended that itch be scored and recorded each time that other physiological parameters are measured and recorded.

   The knowledge relating to all aspects of perception of noxious itch is only now becoming widely recognised. [9] Scoring itch is not as well validated as pain scoring but scales exist. [10] Use of any scale would allow subsequent reassessment after an intervention.

6. **Non-pharmacological pain management strategies should be used in addition to pharmacological methods whenever available and appropriate.**

   Pain is a multidimensional experience and therefore the positive effects of the provision of appropriate environment (place, lighting, noise, temperature, décor etc.), reassurance, distraction and relaxation techniques should be recognised as compliments to the pharmacological interventions. [11]

   In addition, it may be appropriate to consider psychological and psycho-educational interventions for individual patients by the psychosocial team. [6] For example goal planning, problem solving, cognitive behaviour therapy and education re pain and it's management.

7. **Analgesia therapy regimens should be based on a ‘step-down’ ladder rather than a ‘step-up’ ladder until analgesia is achieved.**

   Consider starting with intravenous opiate until adequate analgesia provided. Addition of regular, simple analgesics (paracetamol, NSAIDs) may give useful additional analgesia and allow change from parenteral to enteral opiate. Reduction and cessation of opiate analgesia should occur before reduction and cessation of paracetamol and/or NSAIDs.

8. **Early and repeated consideration should be given to provision of regular opiate analgesia by the most appropriate route and method of administration.**

   If several doses of opiate are given on an ‘as required’ prescription, it may be more appropriate to prescribe a regular, time related dose of opiate. This may be in the form of regular doses of oral morphine sulphate (e.g. Oramorph), twice daily modified release morphine sulphate (e.g. MST) or other similar opiates (oxycodone). Consideration may need to be given to provision of parenteral opiate by either patient or nurse controlled intravenous opiate analgesia (PCA/NCA).

9. **All patients should receive regular doses of paracetamol unless contraindicated.**

   There is good evidence for the efficacy and safety of regular paracetamol in treatment of acute pain. [(6)] Paracetamol given regularly and in appropriate dose can give significant additional analgesia in combination with opiate and may have an opiate sparing effect. [(6)]

10. **Consideration should be given to prescription of regular doses of a non-steroidal anti-inflammatory drug (NSAID) to augment the analgesia provided by paracetamol unless contraindicated.**

    There is good evidence that the provision of a regular NSAID to regular paracetamol has a useful additional analgesic effect and an increased opiate sparing effect. [(6)]

    Individual clinical judgement will be required to determine the impact of any relative contraindication e.g. asthma, renal impairment (or risk of), gastric erosion (or risk of), increased surgical bleeding.

    Evidence from use in asthmatic patients suggests that worsening of bronchospasm is unlikely unless the patient’s asthma is brittle or difficult to control. Close observation of all asthmatic patients given NSAIDS is advised. A history of previous uneventful use of NSAIDs in each individual patient is reassuring.

Adverse effects on renal function rarely occur in therapeutic doses unless other risk factors coexist. These would include hypovolaemia, pre-existing renal impairment and the presence of other nephrotoxic agents. [6]

Experience from general acute pain services would suggest that symptomatic gastric erosions are rare in patients who are adequately resuscitated and allowed enteral intake.

Services that have introduced the use of NSAIDs have not noted any significant increase of operative or postoperative blood loss. [6]

11. Early consideration should be given to prescription of gabapentin/ pregabalin as a supplement to the pain and itch management regimen.

Experience of and evidence for the use of gabapentin**/** pregabalin in the treatment of acute burn related pain is evolving rapidly both nationally and internationally. [6] Services have frequently introduced this therapeutic option and found very positive effects.

Good evidence now exists for both improvement in analgesia and for reduction of opiate dose required to provide similar analgesia. [6] Gabapentin appears to have a good profile of safety.

There is an increasing body of evidence that shows gabapentin to be a useful drug for the treatment of noxious itch in addition to its analgesic effects. [12, 13]

In services where gabapentin / pregabalin are an established part of the pain and itch management regimen opportunities to objectively assess effects and side effects have been missed. Any service considering the introduction of gabapentin are strongly encouraged to closely audit this change in practice (timing of commencement of treatment, indications for treatment, effects and side-effects of treatment and timing of cessation of treatment are all areas that warrant further study).

12. All patients must be assessed for side-effects of treatment and suitable therapeutic adjustments or interventions made.

Opiate analgesic drugs can cause significant respiratory depression. No patient cared for within the MB ODN should be treated with opiate analgesia in areas that do not have access to oxygen and appropriate resuscitation equipment and skills. It recommended that all patients who receive opiate analgesic drugs should have an appropriate dose of naloxone prescribed on their prescription chart. [1]

Opiates are associated with an increase in incidence of nausea and vomiting. Any nausea and vomiting should be treated urgently and effectively. Prescription of regular antiemetics may be required as reduction in opiate dose may not be possible [1, 6]

Opiate analgesic drugs can cause significant constipation which may cause distress and may hinder the provision of adequate nutrition. It is recommended that all patients receiving regular doses of opiate analgesic drugs be prescribed appropriate aperients [(1)] (e.g. senna, sodium docusate, lactulose).

Opiates are associated with itching and any change in perception of itching should be noted when opiate doses are started or changed. Treatment should be directed to the relief of itch as reduction in opiate dose may not be possible.

Side- effects of paracetamol, NSAIDs and gabapentin are addressed elsewhere.

13. The use of general anaesthesia for the patient during potentially painful procedures should be considered when appropriate analgesic options have been implemented and found to unsatisfactory.

Despite the best efforts of all healthcare professionals involved, the provision of an exhaustive list of analgesic interventions may still provide individual patients with inadequate analgesia for potentially painful procedures (dressing changes, therapy sessions, splinting). Persistence with these procedures under these circumstances is inhumane and highly distressing to both the patient and the staff involved. It can also lead to an inadequate result from the procedure. Therefore, it is advised that general anaesthesia should be available under these circumstances.

Applicability

The development group believe that these guidelines are immediately applicable. This will require a short period of 'roll-out' in each service for any changes to pain assessment. Availability of appropriate pain scoring tools should already exist in the Pain Services for each provider Trust. Decisions on the method used for itch scoring may be required. There may need to be agreement on the most appropriate place for recording of pain and itch scores and documentation of subsequent actions.

Editorial Independence

These guidelines have been produced without funding or influence from any external body.

All members of the development group declare that they have no conflicts of interest related to any aspect of these guidelines.

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