

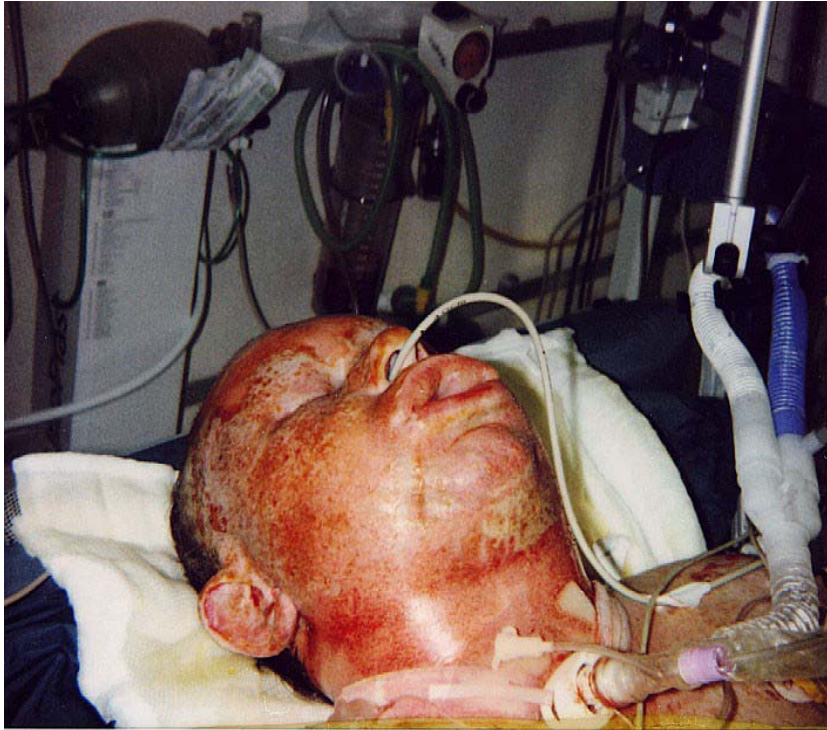
Bethan Lewis – Ward Manager      Philippa Thompson – Senior Clinical Nurse  
Tempest Burns ITU, Burns Centre,  
ABM University NHS Trust,  
Swansea



# An Analgesia Based Sedation Approach on The Burns ITU: Challenge Or Benefit?

BACCN CONFERENCE 2008

# Complexity of Burn Injuries



# Goals of Sedation

- ❖ Calm
- ❖ Co-operative
- ❖ Comfortable
- ❖ Communicative



# Historical Sedative Use on Burns ITU

- ❖ IV Morphine 60mgs/hr +  
Or
- ❖ Fentanyl 0.5 – 1mg/hr +
- ❖ Propofol 20 -40 mls/hr +
- ❖ Midazolom 60mgs/hr
- ❖ +/- relaxants if required

INTRAVENOUS AND SUBCUTANEOUS INFUSIONS (Supplement)

NHS  
GIG  
CENTRE

HOSPITAL: \_\_\_\_\_ SURNAME: \_\_\_\_\_  
WARD: \_\_\_\_\_ FIRST NAME: \_\_\_\_\_  
CONSULTANT: \_\_\_\_\_ ADDRESS: \_\_\_\_\_  
DATE OF BIRTH: \_\_\_\_\_

PATIENT'S NAME: \_\_\_\_\_

INTRAVENOUS AND SUBCUTANEOUS INFUSIONS  
INFUSIONS TO BE ADMINISTERED ONCE ONLY, UNLESS THE PRESCRIBER SPECIFIES

| DATE & START TIME | INFUSION FLUID                        |        |      | ROUTE | MEDICINE ADDED |      | INFUSION RATE OR DURATION | PRESCRIBER'S SIGNATURE | PHARM | TIME |            | VOL GIVEN | GIVEN BY    | CHECKED BY  |
|-------------------|---------------------------------------|--------|------|-------|----------------|------|---------------------------|------------------------|-------|------|------------|-----------|-------------|-------------|
|                   | TYPE / STRENGTH                       | VOLUME |      |       | APPROVED NAME  | DOSE |                           |                        |       | DATE | START/STOP |           |             |             |
| 23/1              | Midazolam 50mg/50ml                   | 50ml   | 50ml |       |                |      | 0-20ml/hr                 | [Signature]            |       | 23/1 | 12:00      | 50ml      | [Signature] | [Signature] |
| Batch No.         | 15554                                 |        |      |       |                |      |                           |                        |       |      |            |           |             |             |
|                   |                                       |        |      |       |                |      |                           |                        |       |      |            |           |             |             |
| 23/1              | Remifentanyl 50µg/ml in 50ml N saline | 50ml   | 50ml |       |                |      | 0-20ml/hr                 | [Signature]            |       | 23/1 | 12:30      | 50ml      | [Signature] | [Signature] |
| Batch No.         | 15554                                 |        |      |       |                |      |                           |                        |       |      |            |           |             |             |
|                   |                                       |        |      |       |                |      |                           |                        |       |      |            |           |             |             |
| 23/1              | Propofol 1%                           | 50ml   | 50ml |       |                |      | 0-20ml/hr                 | [Signature]            |       | 23/1 | 13:00      | 50ml      | [Signature] | [Signature] |
| Batch No.         | 15554                                 |        |      |       |                |      |                           |                        |       |      |            |           |             |             |
|                   |                                       |        |      |       |                |      |                           |                        |       |      |            |           |             |             |
| 23/1              | Remifentanyl 50µg/ml in 50ml N saline | 50ml   | 50ml |       |                |      | 0-20ml/hr                 | [Signature]            |       | 23/1 | 13:30      | 50ml      | [Signature] | [Signature] |
| Batch No.         | 15554                                 |        |      |       |                |      |                           |                        |       |      |            |           |             |             |
|                   |                                       |        |      |       |                |      |                           |                        |       |      |            |           |             |             |
| 24/1              | HAS                                   | 50ml   | 50ml | IV    |                |      |                           | [Signature]            |       | 24/1 | 06:00      | 50ml      | [Signature] | [Signature] |
| Batch No.         | 15554                                 |        |      |       |                |      |                           |                        |       |      |            |           |             |             |
|                   |                                       |        |      |       |                |      |                           |                        |       |      |            |           |             |             |
| 24/1              | Propofol 1%                           | 50ml   | 50ml |       |                |      | 0-20ml/hr                 | [Signature]            |       | 24/1 | 06:30      | 50ml      | [Signature] | [Signature] |
| Batch No.         | 15554                                 |        |      |       |                |      |                           |                        |       |      |            |           |             |             |
|                   |                                       |        |      |       |                |      |                           |                        |       |      |            |           |             |             |
| 24/1              | HAS                                   | 50ml   | 50ml | IV    |                |      |                           | [Signature]            |       | 24/1 | 07:00      | 50ml      | [Signature] | [Signature] |
| Batch No.         | 15554                                 |        |      |       |                |      |                           |                        |       |      |            |           |             |             |
|                   |                                       |        |      |       |                |      |                           |                        |       |      |            |           |             |             |
| 24/1              | HAS                                   | 50ml   | 50ml | IV    |                |      |                           | [Signature]            |       | 24/1 | 07:30      | 50ml      | [Signature] | [Signature] |
| Batch No.         | 15554                                 |        |      |       |                |      |                           |                        |       |      |            |           |             |             |
|                   |                                       |        |      |       |                |      |                           |                        |       |      |            |           |             |             |

HEALTH RECORD NUMBER: \_\_\_\_\_

# Remifentanil

A unique opioid for analgesia and sedation in ITU.



GlaxoSmithKline, 2005

# Revised Sedation Protocol

---

- ❖ All intubated patients will receive Remifentanil and Propofol
- ❖ Patients requiring >24-48 hrs ventilation will additionally be commenced on Fentanyl and Midazolam
- ❖ Remifentanil will be stopped when skin cover / stability is achieved and thereafter used for COD's

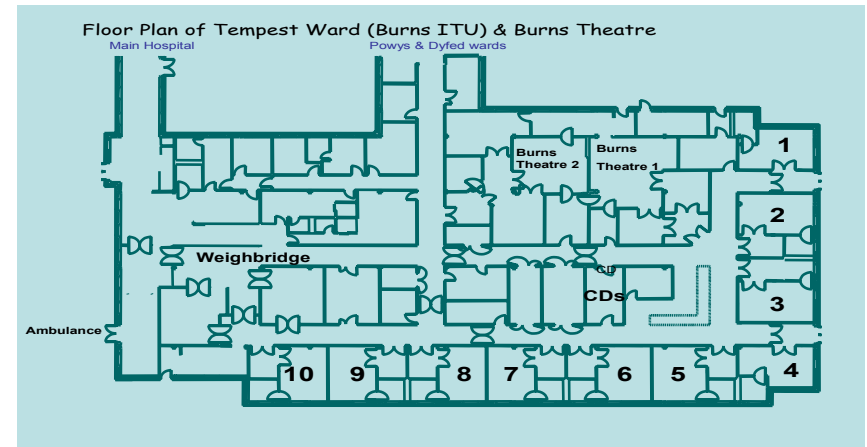
# Nursing Instructions

- ❖ **NO** boluses – treat as an inotrope
- ❖ Always have a new infusion readily available
- ❖ Maintain at approx 0.1 - 0.2mcgs/kg/min
- ❖ Increase incrementally



# Nursing issues

- ❖ Unease in use/further education
- ❖ Patients “lighter”
- ❖ Isolation
- ❖ Staffing levels and experience
- ❖ Dressing changes – BE PATIENT
- ❖ Team work - plan the day!



# An audit of the current sedation protocol on patient outcomes on the Burns ITU



# Aim

---

To establish the impact of the revised sedation protocol on the length of short term mechanical ventilation and weaning processes.

# Method

---

- ❖ Retrospective casenote audit
- ❖ 10 patients having received Remifentanil
- ❖ 10 patients received morphine/fentanyl, midazolam & propofol

# Population

## Traditional Sedation

Age range = 21 - 65

% burn range = 10 - 68

Male:Female ratio = 7:3

## Remifentanil protocol

Age range = 20 - 69

% burn range = 12 - 60

Male:Female ratio = 6:4

# Length of Ventilation

## Traditional sedation

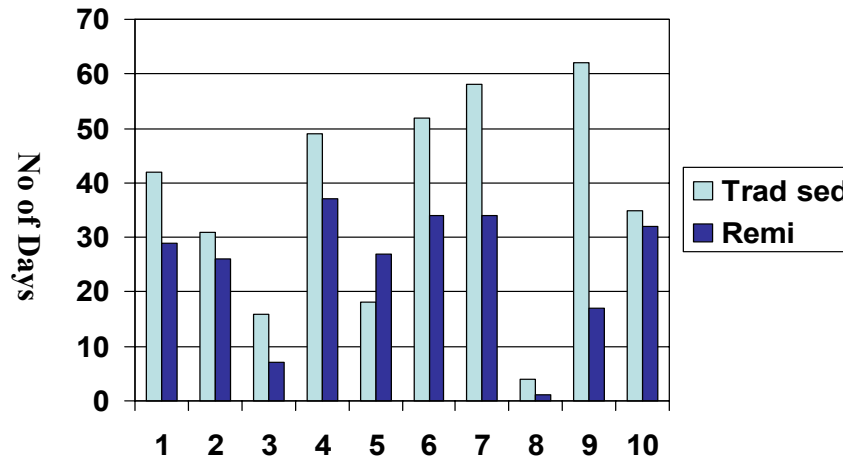
No of days range = 4 - 62

Average = 36.7 days

## Remifentanil protocol

No of days range = 1 - 37

Average = 24.1 days



# Length of Weaning

## Traditional sedation

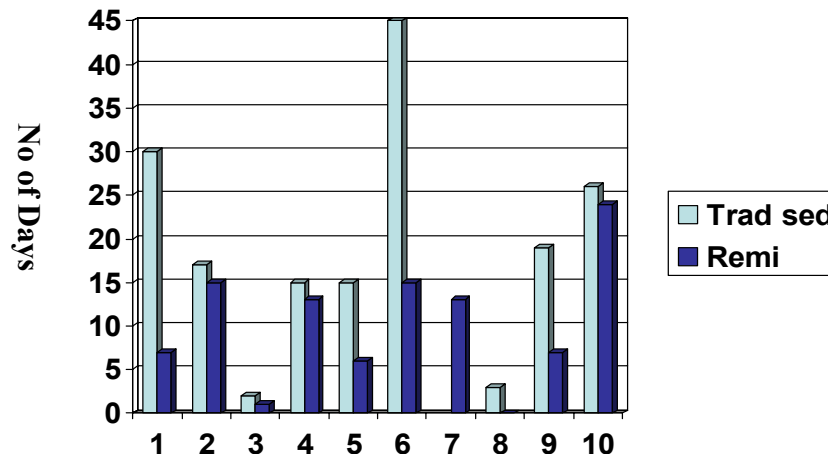
No of days range = 2 - 45

Average = 19.1 days

## Remifentanil protocol

No of days range = 0 - 24

Average = 10.1 days



# Length of Stay in Burns ITU

## Traditional sedation

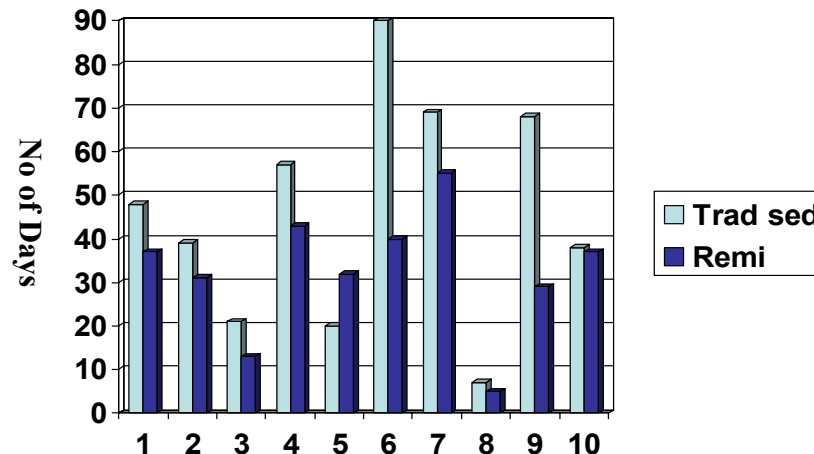
No of days range = 7 - 90

Average = 45.7 days

## Remifentanil protocol

No of days range = 5 - 55

Average = 32.2 days



# Findings

---

Main findings can be categorised as:-

- ❖ Patients were waking sooner
- ❖ Weaning processes were shorter
- ❖ Patients discharged from Burns ITU sooner

# Conclusion

---

- ❖ The introduction of a short acting opiate has improved care within the Burns ITU
- ❖ There are many nursing challenges yet to be resolved
- ❖ We aim to further refine its use to improve patient care in the future

Bethan Lewis – Ward Manager      Philippa Thompson – Senior Clinical Nurse  
Tempest Burns ITU, Burns Centre,  
ABM University NHS Trust,  
Swansea



**Thank you for  
listening  
ANY  
Questions?**

Bethan.Lewis@swansea-tr.wales.nhs.uk

Philippa.Thompson@swansea-tr.wales.nhs.uk

**BACCN CONFERENCE 2008**