

A photograph showing a New Zealand nurse in the foreground, seen from behind, wearing a light-colored jacket with "NEW ZEALAND NURSE" printed on the back. The nurse is standing in a grassy field. In the middle ground, several children are walking away from the camera. To the left, there is a small utility vehicle with a black box on its bed. In the background, a larger white van is parked. The scene is set in a rural or semi-rural area with trees and hills in the distance.

NEW ZEALAND  
NURSE

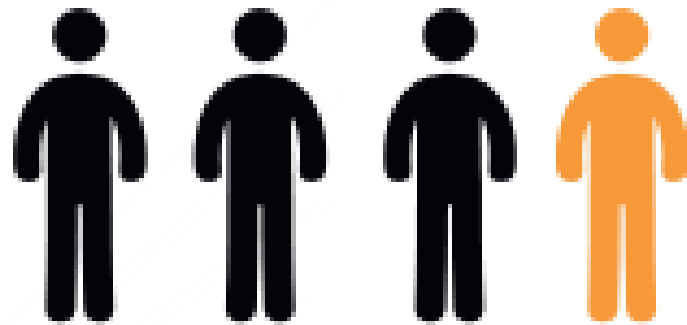
Kevin Henshall  
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1 in 4

# Middlemore Experience



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# Middlemore Experience





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# Trauma Committee







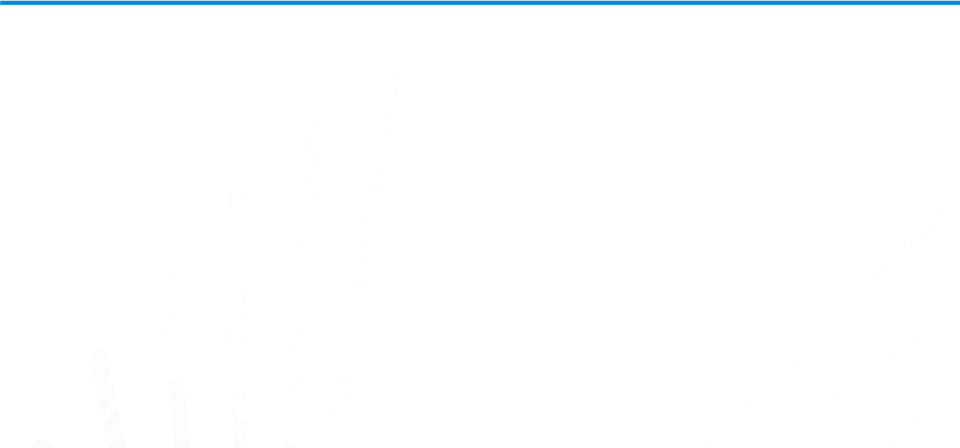
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- Vast Majority of Patients have Honeymoon period
  - Limited analgesia overnight
  - Poor Positioning
  - Wake up in strife
    - Often early signs of respiratory distress missed
- Suggested Early PCA & HDU Review

# That should be easy to achieve



# Change is easy?







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**KEEP  
CALM**

its only a

**Rib**

**FRACTURE**



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**KEEP  
CALM**

Its only

**a**

**PCA**



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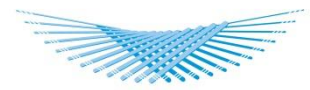






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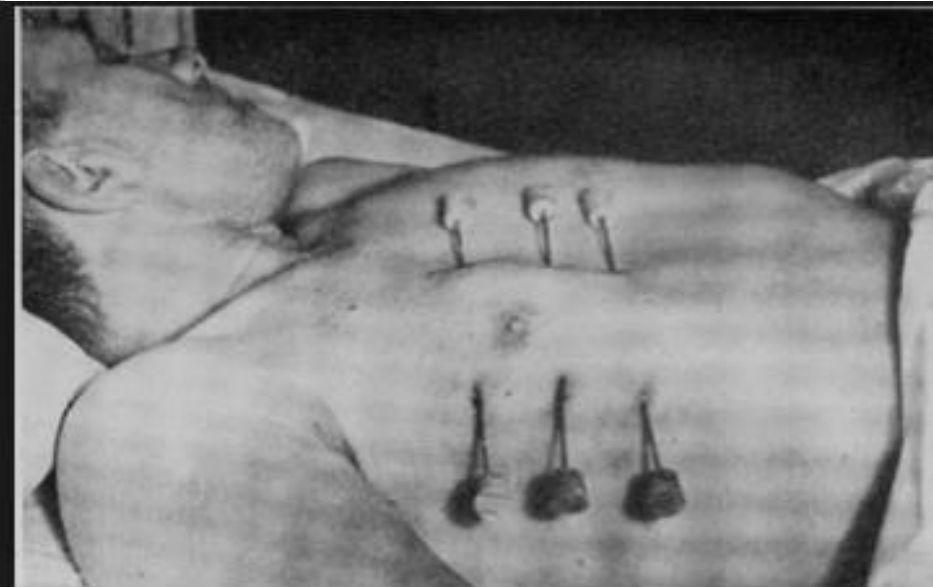
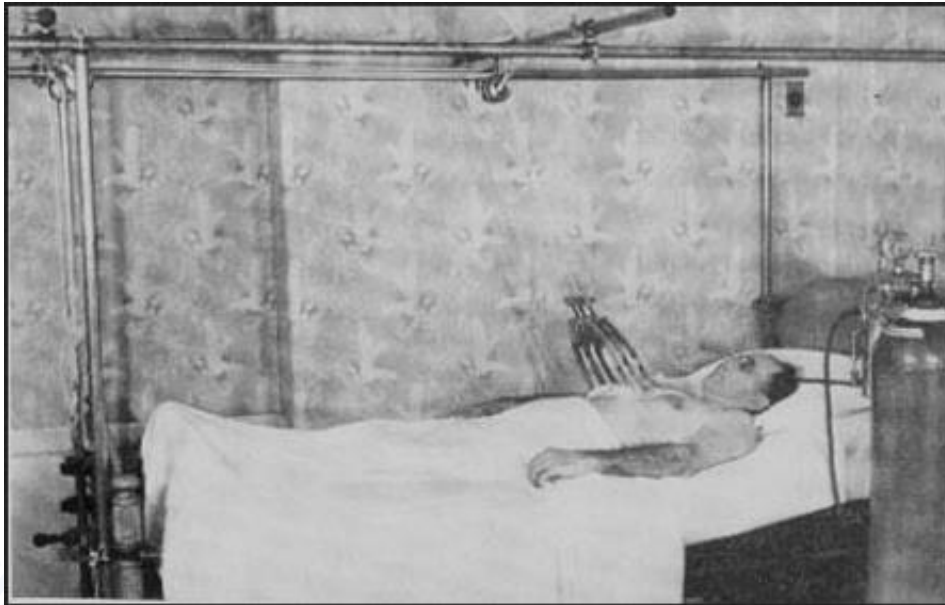


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# Literature Review



# What we think we know is ?

- Honeymoon Period
- Peaking at Day 3
  - Pain
  - Pulmonary Contusions
- Pneumonia typically manifests @ day 5
  - Prior is a marker of badness !!!***
- Delayed Pleural Effusion or Haemothorax



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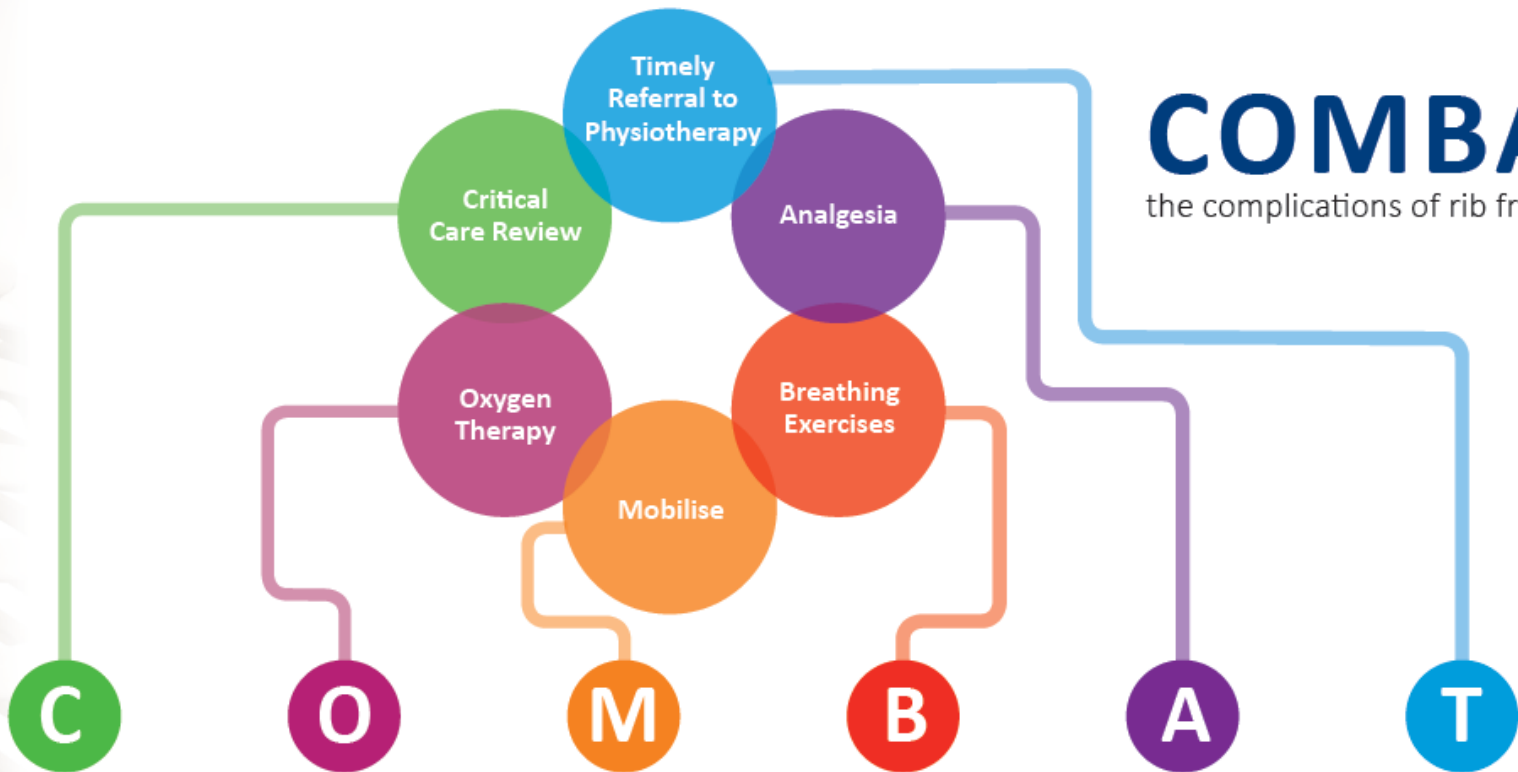
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# COMBAT

the complications of rib fractures



## Critical Care Review

- Critical Care review in Emergency Department (ED) prior to ward transfer is recommended
- **ED**
  - Patients requiring immediate surgery
  - $\geq 3$  isolated rib fractures
  - Consider referring with  $>1$  rib fracture + comorbidities/ respiratory dysfunction
- **Ward**
  - Worsening CXR +/- clinical state
  - $FiO_2 \geq 0.3$
  - Obligated orthopnoea
  - Vital Capacity  $\leq 30\%$
- **Disclaimer – these criteria DO NOT replace:**
  - EWS scoring
  - Requesting PAR Team review
  - 777 activation

## Oxygen Therapy

- Humidification can be used for elderly/comorbid/immobile patient via HFNP
- HFNP  $\geq 35L/min$  flow +/- oxygen to achieve target SpO<sub>2</sub>
- Oxygen and target SpO<sub>2</sub> should be prescribed
- $FiO_2 \geq 0.4$  = PAR/team review
- $FiO_2 \geq 0.6$  = PAR/ICU review

## Mobilise

- Mobilise ASAP if safe to do so – including bariatric patients
- Bariatric bed  $>160kg$
- Position the patient at least 30 degrees head up
- Contact Ward Physiotherapist for mobility review

## Breathing Exercises

- Deep breathing and coughing hourly in an upright position – **minimum 3 x 10 breaths/hour**
- Brace painful chest area with a pillow/rolled towel to cough
- Incentive Spirometry for immobile patients, aim  $\geq 1500mL$

## Analgesia

- If the patient cannot cough – their pain is NOT controlled
- Initially IV opioid, then introduce multi-modal oral analgesia early
- Refer to APS for PCA or regional analgesia prior to ward transfer

## Timely Referral to Physiotherapy

- Active referral 0730-1600hrs:
  - Any number of rib fractures, flail chest or painful chest injury
  - Priority given to those with lung disease,  $>65yrs$ , already have onset of respiratory dysfunction
- Afterhours review:
  - Must be discussed with treating Reg or SMO & strongly considered if;
  - Patient has acute sputum retention/collapse with respiratory dysfunction ( $\uparrow RR$ ,  $SpO_2 \leq 92\%$ , secretions, respiratory fatigue)

Further detailed information is available in the Chest Trauma Guideline on Paanui.

Developed by Lisa Welsh, Cardiorespiratory Physiotherapist, on behalf of the Middlemore Trauma Committee.

# Critical Care Complex Produced Guidance

## Mandatory Review

- Emergency Department

## Re-Review Guidance

- Ward patients

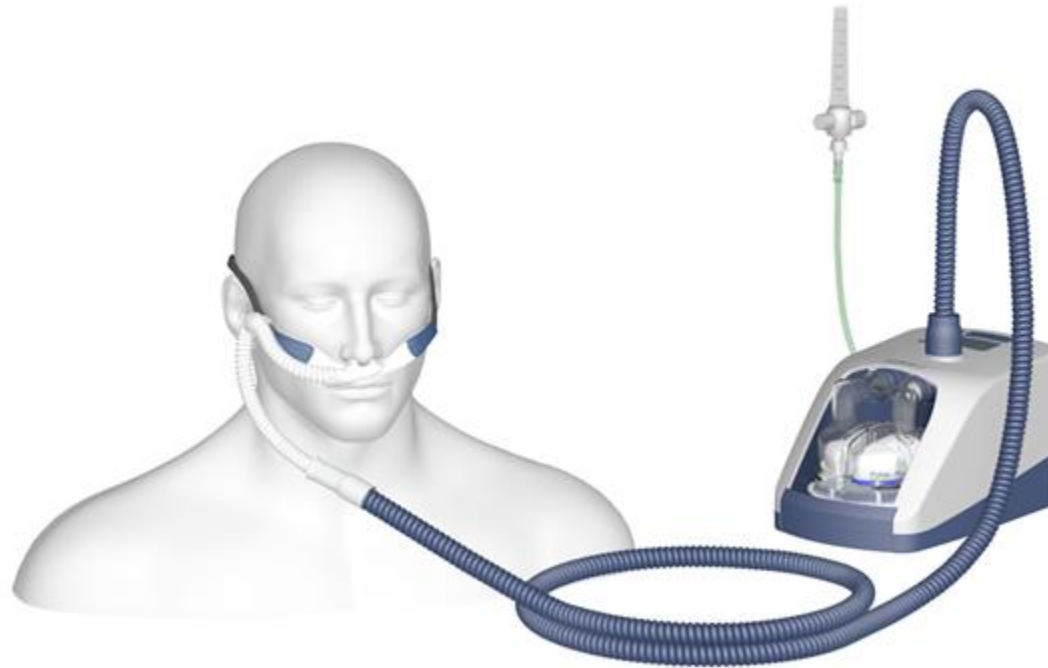


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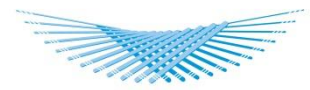


# Get Up Get Moving



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## **Position statement on the use of slow-release opioid preparations in the treatment of acute pain**

**Mounting evidence highlights the inappropriate use of slow-release opioids for the treatment of acute pain. The recommendations in this statement are in line with the approved indications for slow-release opioids listed by regulatory authorities including the Therapeutic Goods Administration in Australia, Medsafe in New Zealand, and the US Food and Drug Administration.**



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