

# ADVANCED MANAGEMENT OF CANCER PAIN

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# Presentation overview

- Brief overview of our service and collaboration
- Overview of cancer pain cases from our experience
- Common challenges and their management in cancer related pain
- Interactive session on clinical case scenarios
- No conflicts to declare



## Joint working at Woodlands Hospice and Walton Centre Liverpool



- Started by Tim Nash and Ged Corcoran in 1990's
- Usually seen within one week of referral
- If required, involvement of other specialists such as neuro/spine surgeons/oncology
- Admission to hospice/hospital for pre and post-procedure care
- Most procedures at Walton Centre
- Discharge and follow up with local team

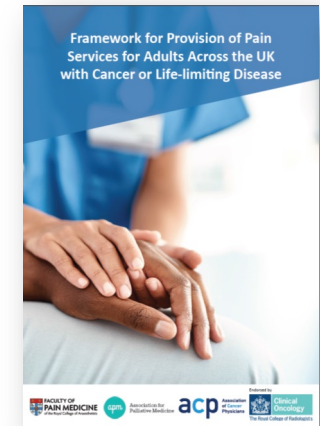
# Background to interventions (collaboration)

- Diagnosis of pain type and cause
- Consideration of WHO analgesic ladder
- Recognising pain types responding to interventions
- Training/competence/resources
- Recognise “*Total Pain*”
- Role of other disciplines and techniques
- Patient choice



# Background

- 70-90% of Cancer pain controlled following WHO guidelines
- 10%-30% do not achieve adequate analgesia (EPIC 2007, Valeberg 2008)
- Significant proportion of these patients may benefit from advanced pain management techniques



EFIC Standards on cancer pain  
management 2019

An aerial photograph of a city street grid, viewed from above. The image is overlaid with a semi-transparent blue filter. A thin white rectangular border frames the entire image. Centered over the image is the text "IT AIN'T WHAT YOU DO IT'S WHERE YOU DO IT..." in a bold, white, sans-serif font. The text is split across two lines. A thin white horizontal line is positioned below the second line of text.

IT AIN'T WHAT YOU DO  
IT'S WHERE YOU DO IT...

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At this time the out of re patients are cared for on an acute neurosurgical ward

Is a neurosurgical ward the right  
place to care for this lady?

## Case 1 V

V was admitted to Woodlands hospice and her daughter stayed with her

The registrar from the hospice plus a hospice nurse accompanied her

Cordotomy was successful and passive movement was possible but patient anticipated the pain and did not yet trust the procedure

Nursing her was easier

Transferred back to local hospice to continue rehab and eventually got home

Ca

At this time, patients on complex medication regimes were looked after in the hospice – should this lady be admitted there?

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## Case 2 J

- J was admitted to the Walton centre and was observed in HDU post-procedure due to concerns about opioid toxicity post-procedure
- Her opioid dose was reduced slightly prior to the procedure
- Cordotomy was successful and she was moved to a normal ward the next day, being discharged a few days later

IT IS ALSO WHAT YOU  
DO...

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## Case 3 D

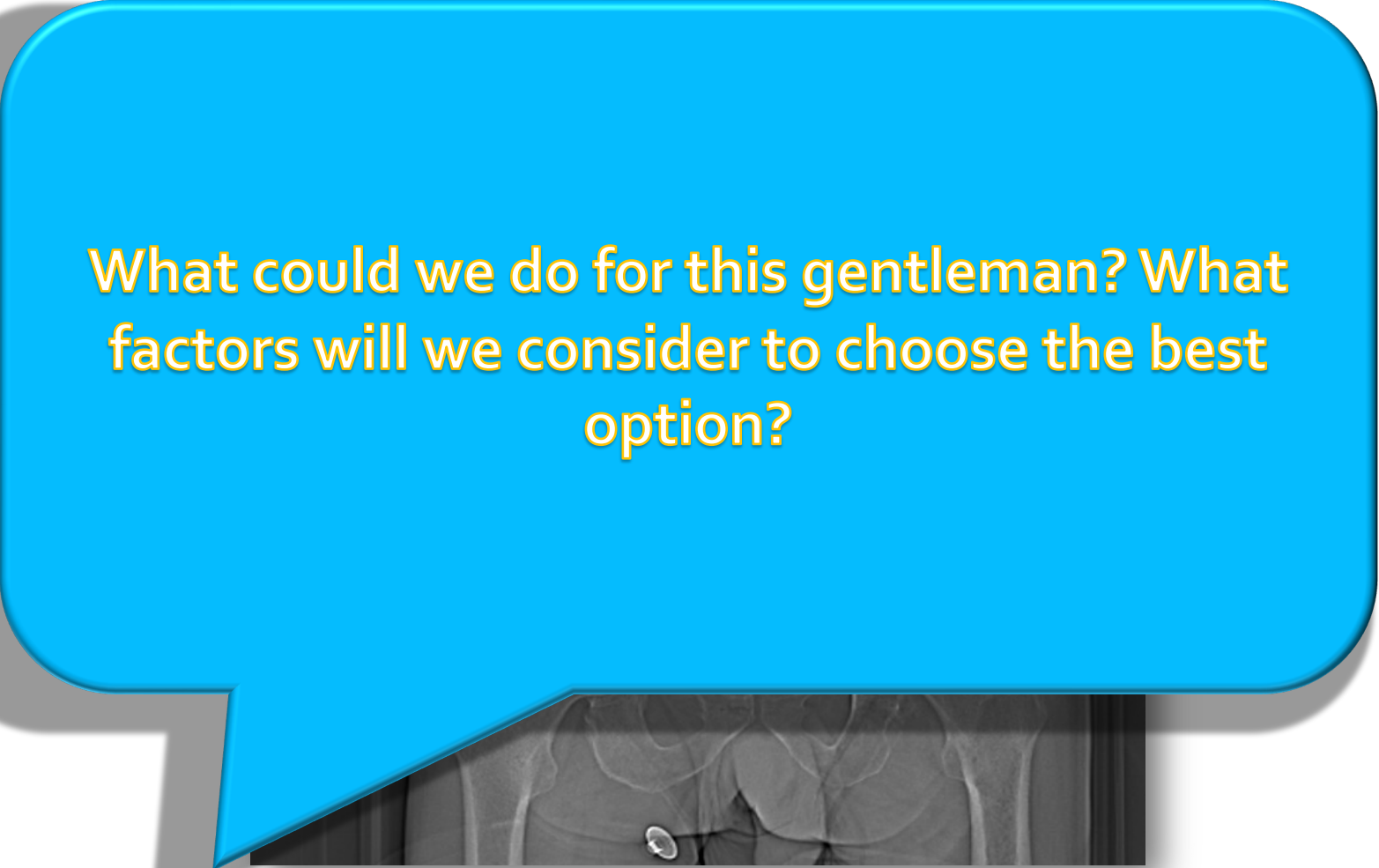
- 75 year old with renal cancer
- Metastasis to left hip/pelvis region
- Had oncology and ortho review
- Palliative care input but pain difficult and cannot manage at home
- Pain worse on movement in left leg in hip and knee
- On Morphine MR 60mg bd, Naproxen 500mg bd, Pregabalin 150mg bd





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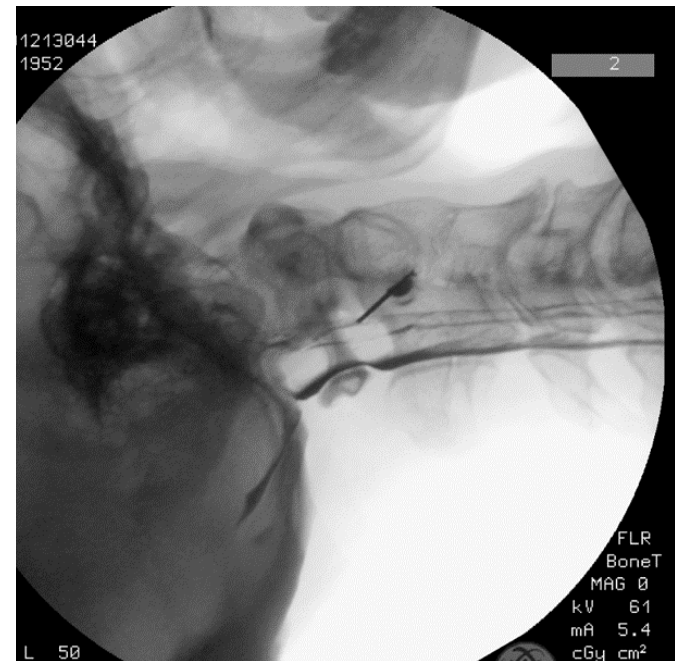
Advanced pain management techniques



What could we do for this gentleman? What factors will we consider to choose the best option?

# Outcome

- Quick access (regional referral)
- Discharged 48 hours post cordotomy (home)
- Over 50% reduction in analgesia
- No pain left hip and knee
- Some side effects post cordotomy
- Pleased to received positive feedback



# What is Cervical cordotomy?

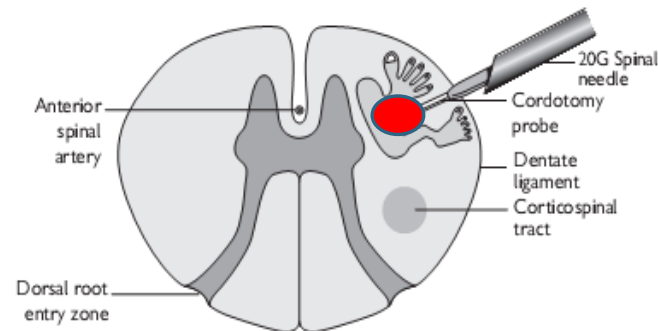
(Mullan, Rosomoff, Lipton 1960s)

Disrupting spino-thalamic tracts  
between C1 and C2 vertebrae,  
using "RF Current"

Surgical Cordotomy (Spiller & Martin  
1912)

CT/O-arm guided technique

Endoscopic technique



**Pain, itch and temperature perception is abolished;  
Pleasant touch is unaffected** (Marshall, Marley, Sharma et al 2019)

## Patient's position



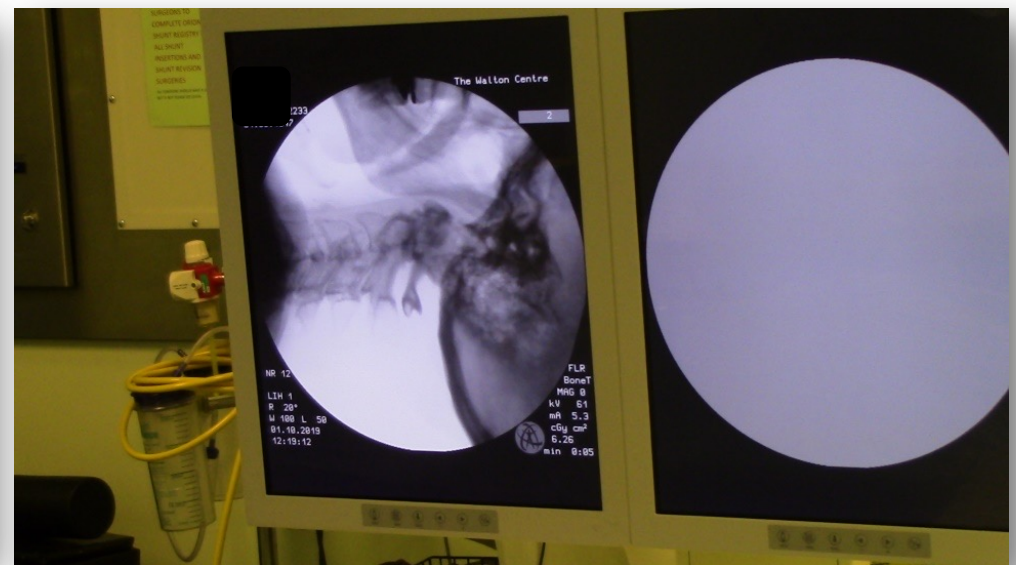
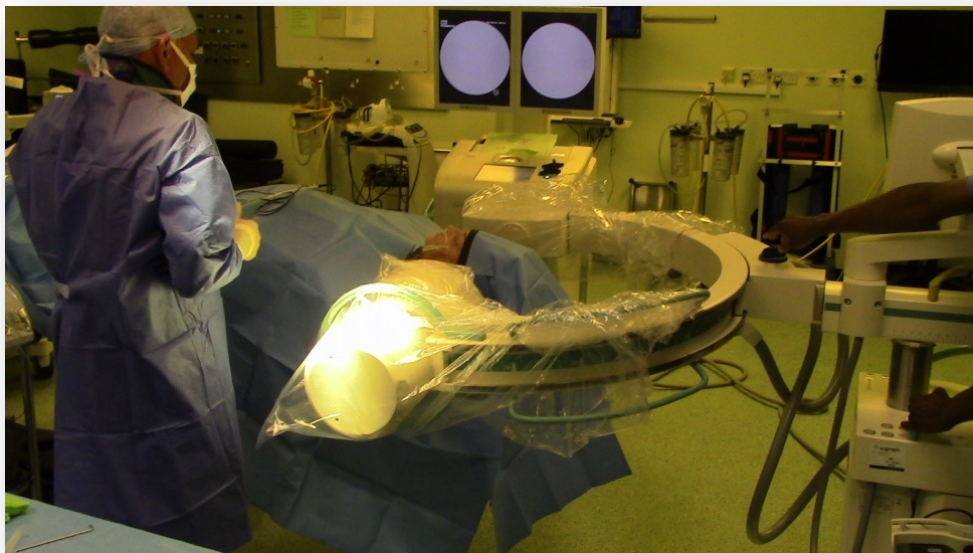
# Technique: Cordotomy

- Supine
- C1/C2 foramen
- Awake, Pulse oximeter
- Nasal Specs O<sub>2</sub>
- 20G Spinal needle
- Local Anaesthesia, sedation
- Needs experienced operator





# Technique



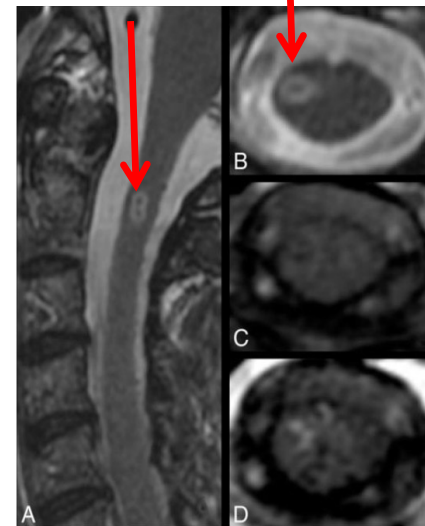
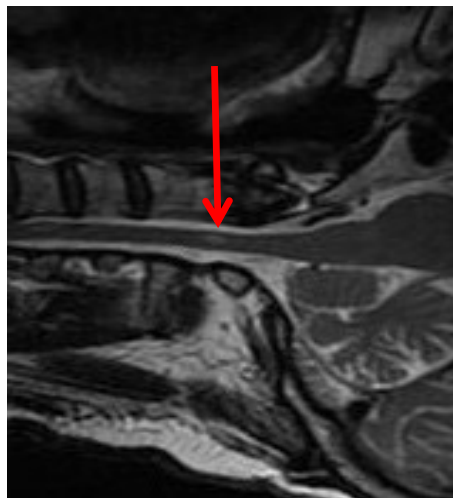
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## Sensory & motor stimulation; then incremental RF lesion



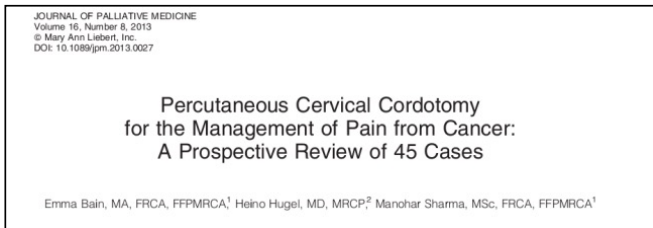


## Cordotomy lesion on MR Scan



# Our prospective data (2013; 2020)

- Doyle A, Sharma ML, Gupta M, Goebel A, Marley K. Percutaneous cervical cordotomy for cancer-related pain: prospective multimodal outcomes evaluation. BMJ Support Palliat Care. 2020 Dec 4:bmjspcare-2019-002084.



Observational Study > Pain Pract. 2021 Jun;21(5):557-567. doi: 10.1111/papr.12991.  
Epub 2021 Jan 22.

## **Percutaneous Cervical Cordotomy for the Treatment of Cancer Pain: A Prospective Case Series of 52 Patients with a Long-Term Follow-Up**

Paul J W Zomers<sup>1</sup>, George Groeneweg<sup>2</sup>, Sara Baart<sup>2</sup>, Frank J P Huygen<sup>2</sup>


Affiliations: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100

# UK Cordotomy Registry data: 2019

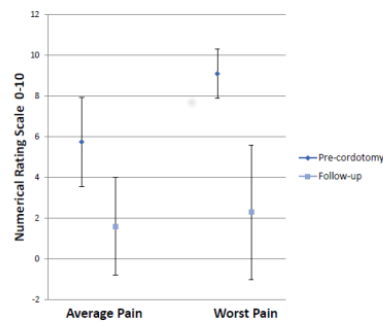
Original research



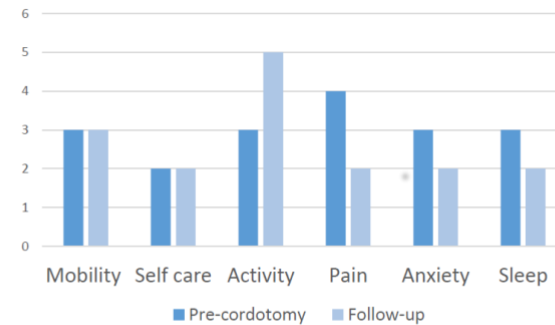
## Percutaneous cervical cordotomy for cancer-related pain: national data

Marlise Poolman,<sup>1</sup> Matthew Makin,<sup>2</sup> Jess Briggs,<sup>3</sup> Kate Scofield,<sup>4</sup>  
Nick Campkin,<sup>5</sup> Michael Williams,<sup>5</sup> Manohar Lal Sharma,<sup>6</sup> Barry Laird,<sup>4,7</sup>  
Catriona R Mayland ,<sup>8,9</sup> On behalf of the INPIC Group

# 159 Cases, UK Registry data



**Figure 1** Average and worst pain, before procedure and at follow-up (n=159).



**Figure 2** 5-Level version of EuroQol-5 Dimension (EQ-5D-5L), before procedure and at follow-up (n=110).

**Conclusions** PCC is an effective treatment for cancer pain; however, findings in this study suggest PCC referrals tended to be late in patients' disease trajectories. Further study into earlier treatment and seeking international consensus on PCC outcomes will further enhance opportunities to improve patient care.

# Cordotomy outcomes

- Around 200 patients over 20 years
- Less than 10% failure
- 50% reduction in opioids
- Mirror pain; motor weakness
- Need 3-5 days admission

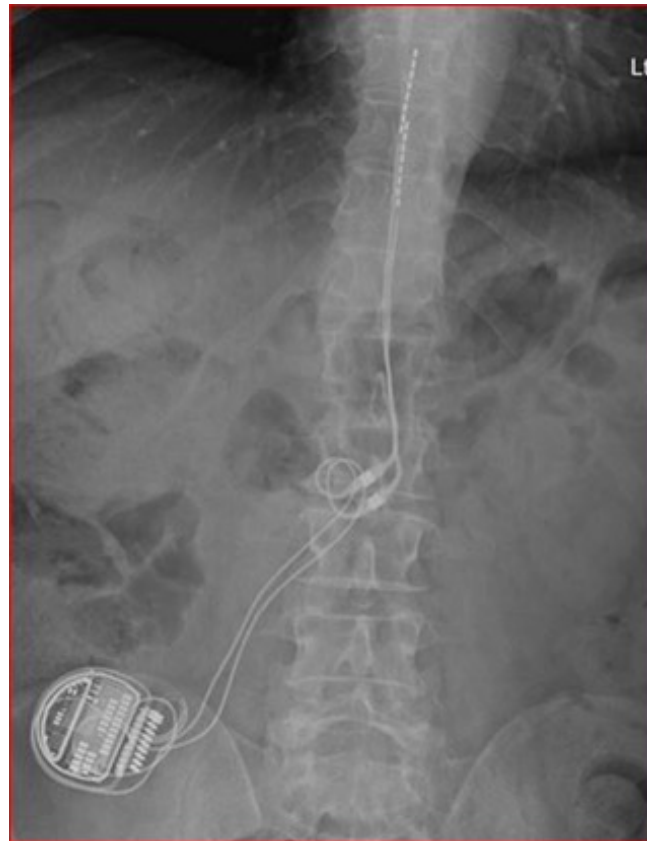
(Jackson et al. 1999, Crul et al. 2005, Jones et al. 2003, Bain et al. 2013, France et al 2013, Poolman et al 2019, Doyle et al 2020)



How to approach management of this pain problem?

## Case 4 K

- Oncology input helped here: prognosis plus treatment
- We knew K for seven years in total:
  - Titration of neuropathic agents
  - Initiation of strong opioids
  - Injection of local anaesthetic and steroid to nerve root
  - Spinal cord stimulator
  - Chemotherapy
  - Radiotherapy
  - Intrathecal pump







**THERE MAY BE  
TROUBLE AHEAD....**

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## Case 5 M

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What could be causing this lady's delirium? How should it be managed?

## Case 5 M

- Obs fine, required one to one nursing to keep her safe
- Meds gradually down titrated and haloperidol for hallucinations
- Delirium settled, rehab started then spiked temperature
- Positive urine culture and new hydronephrosis discovered
- Successfully treated but now clear she is deteriorating
- Died in hospice 1 month later

What could be done to help this gentleman?

- Pregabalin (last took taking 2 weeks ago)

## Case 6 R

- Meds converted to syringe driver with significant dose reduction
- Re-titration of pregabalin and reduction in ibuprofen with institution of PPI
- Saddle neurolysis performed at Walton Centre
- On return patient also moved around a lot – demonstrated how he could sit on:
  - The bed
  - The armchair
  - The visitors stacking chairs
  - The bench in the hospice garden
  - The sofa in the lounge
- Discharged after a few days on half the opioid equivalent to admission with plans to down-titrate further

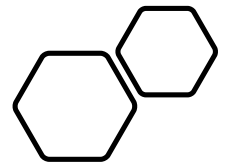
# Saddle Neurolysis with Intrathecal Phenol

- Usual indication – perineal/rectal pain
- In Hospital or Hospice
- Check bowel / bladder continence
- Extremely thick and viscous solution given by a spinal needle
- Post procedure:
  - Sitting position for 30-40 minutes
  - No hemodynamic changes
  - Headache (PDPH) is rare
  - Saddle area will feel numb and/or abnormal sensation (dysesthesia) after the procedure





## Saddle Phenol Block



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# Current Phenol in Glycerol issues

- Not available for some time
- Aqueous phenol with Omnipaque
- Absolute alcohol
- 1.2 ml, NrFit 20 G needle, 1 ml syringe
- X-ray guidance L5/S1 space
- Good outcomes





## Case 7 G

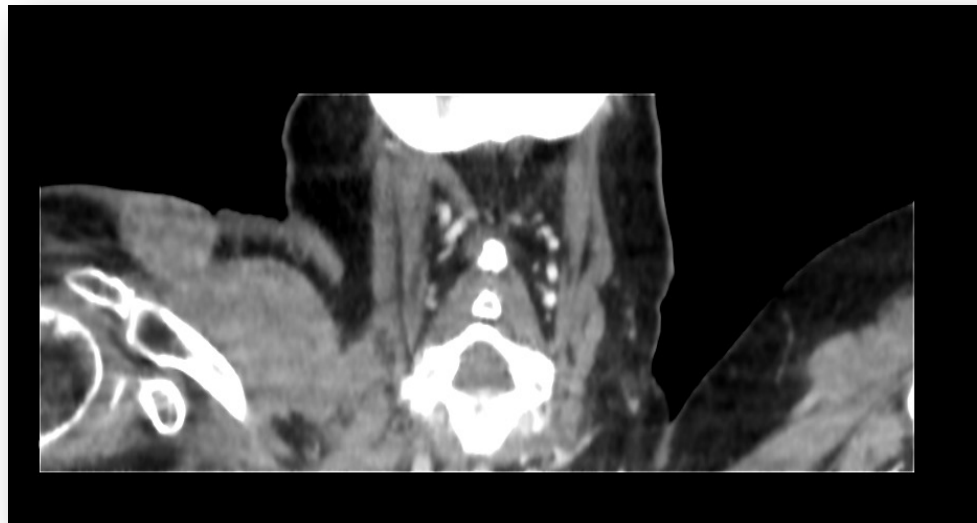
- 67 year old lady with metastatic melanoma and pain in leg and had several leg surgeries
- Undergoes cordotomy and significant opioid down titration
- Becomes much more alert following procedure
- Husband thanks us for giving him his wife back – he hasn't been able to have a conversation with her for months because of the medications related side effects



## What options could there be for pain control?

- On syringe driver with 70mg of oxycodone and seven maximal doses plus 2mg bd methadone and 300mg bd pregabalin
- Two attempts at upper thoracic neurolytic block in local hospital

## Case 8 B



## Case 8 B Outcome

Had cordotomy and opioids halved  
Very drowsy afterwards

Transferred back to local hospice – walking for the first time in months and was discharged home at last

# Other effective pain techniques

- Implanted intrathecal pumps
- Spinal cord stimulation
- open surgical cordotomy
- Coeliac plexus block
- Epidural infusion
- Nerve blocks and infusions
- MRI guided focused US



# We may be biased but...

This is hugely rewarding work

Makes a real difference to patients and families

Interesting

Challenging

Never boring

# Benefits of Joint Working



Two heads usually better than one!



Early discussion of procedures – not as a last resort



Timely intervention



Appropriate pre- and post procedure care



Avoids unrealistic expectations.



Mutual learning for both specialties.



Access to specialist services.



# Barriers to Joint Working

- Lack of time in job plans
- Ad Hoc nature of service
- Lack of perceived need (both specialties)
- Unable to respond quickly enough
- Late referrals





# Requirements For Both Specialties

## Palliative Medicine

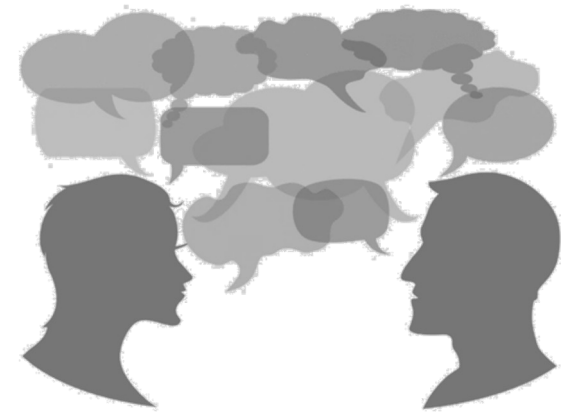
- Recognise the need to have access
- Knowledge about indications for individual procedures (depends on what is available locally)
- Refer patients timely
- Create base for joint working with Pain Specialists

## Pain Medicine

- Cancer pain often not static, but escalating/spreading
- Often significant co-morbidities and generally deteriorating condition
- Flexible and timely assessment
- Patients may well only tolerate one procedure – selection of right one is key
- Patients have different treatment goals and preferences

# Where To Do Assessments And Procedures?

- Assessment in Hospice environment
- Hospice for pre- and post-procedure care
- Procedures in the right environment - sometimes theatre, sometimes at the bedside...

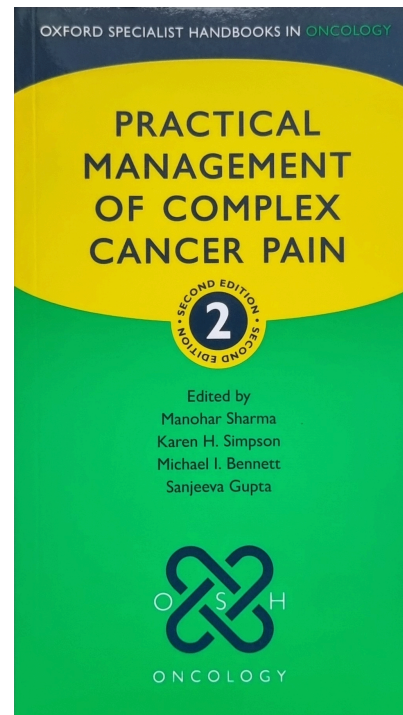


# What can you do in your area?



- Get to know your Palliative Care colleagues.
- Talk to them about the problems they have with complex pain management.
- How could you ensure your service can respond to the need?
- Watch this space!

# Interventional Techniques



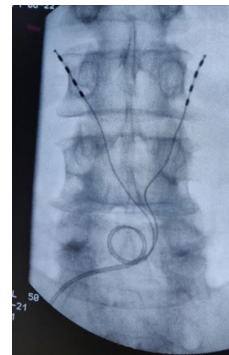
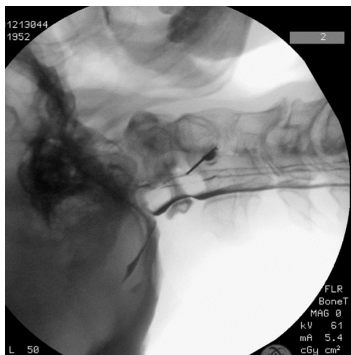
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Advanced pain management techniques

# Evolution of pain medicine, pain clinics and practice over the last 25 years



**NICE** National Institute for Health and Care Excellence





# Main drivers of pain medicine : Collaboration



*Seated, Dr Sam Lipton – From l to r- Dr David Bowsher  
Professor Jim Mumford, Professor John Miles*



The background of the slide is a solid blue color with a pattern of 3D question marks and small cubes. The question marks are of various sizes and are scattered across the entire background. The cubes are also of various sizes and are interspersed among the question marks. The overall effect is a textured, three-dimensional look.

# QUESTIONS

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