Opioid dependence in pain patients
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Opioid dependence in pain patients

- Definitions
- Prevalence
- Assessment
- Opioid replacement therapy
- Acute pain management
- Cancer pain management
Definitions

- Opioid Dependence
  - ICD 10
    ‘cluster of physiological, behavioural and cognitive phenomena’
  - Compulsion to take opioids
  - Difficulty in controlling opioid taking behaviour
  - Physiological withdrawal state if stopped
  - Tolerance
  - Neglect of interests
  - Persistent use despite harm
SUBSTANCE ABUSE (being "stupid")

SUBSTANCE DEPENDENCE (needing it)
Issues with definition
Definition in context of taking opioids for pain

- Compulsion/desire to take opioids
  - Unsanctioned dose escalation
  - Use for non-therapeutic purposes
- Associated behaviour
  - Altering prescriptions
  - Drug from other sources
Chronic/persistent pain

- Pain that persists past normal healing time
- Persistent or recurrent pain lasting longer than 3 months
  - Chronic primary pain
  - Chronic cancer pain
    - Cancer-related or cancer-treatment related
  - Chronic postsurgical and posttraumatic pain
  - Chronic neuropathic pain
  - Chronic headache and orofacial pain
  - Chronic visceral pain
  - Chronic musculoskeletal pain
Opioid Replacement Therapy ORT

- Treatment programme for people with opioid dependency
- Uses substitute opioid medications to support treatment
  - Methadone
  - Buprenorphine
Opioid dependence

Acute pain

Chronic/ persistent pain

Cancer pain
Prevalence of substance dependence in England
Numbers in treatment by main substance group 2014-15

- Opiate: 152,964
- Non-opiate: 25,025
- Non-opiate and alcohol: 28,128
- Alcohol only: 89,107
Other drug use in opioid treatment

<table>
<thead>
<tr>
<th>Substance</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opiate (not crack cocaine)</td>
<td>60%</td>
</tr>
<tr>
<td>Both opiate and crack cocaine</td>
<td>40%</td>
</tr>
<tr>
<td>Cannabis</td>
<td>20%</td>
</tr>
<tr>
<td>Cocaine</td>
<td>10%</td>
</tr>
<tr>
<td>Benzodiazepine</td>
<td>10%</td>
</tr>
<tr>
<td>Amphetamine (other than ecstasy)</td>
<td>5%</td>
</tr>
<tr>
<td>Alcohol</td>
<td>5%</td>
</tr>
</tbody>
</table>
Figure 4.2.1 Age distribution of all clients in treatment 2014-15
Prescription opioid dependence

- 2% of clients reporting for opioid treatment to drug treatment services (4,531 clients in 2005-06)

Figure 6: POM/OTC compounds identified as being problematic by individuals new to drug treatment services who do not report problems with other illegal drug use (2005-06 to 2009-10).
Trends in opioid prescribing in UK
Opioid prescribing in General Practice

Figure 4: trends in the prescribing of opiates analgesics in general practice
Table 1: Number of drug-related deaths where selected substances which are commonly abused were mentioned on the death certificate, deaths registered in 2010 to 2014

<table>
<thead>
<tr>
<th>Substance</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>All drug poisoning deaths</td>
<td>2,747</td>
<td>2,652</td>
<td>2,597</td>
<td>2,955</td>
<td>3,346</td>
</tr>
<tr>
<td>Any opiate&lt;sup&gt;4&lt;/sup&gt;</td>
<td>1,527</td>
<td>1,439</td>
<td>1,290</td>
<td>1,592</td>
<td>1,786</td>
</tr>
<tr>
<td>Heroin and Morphine</td>
<td>791</td>
<td>596</td>
<td>579</td>
<td>765</td>
<td>952</td>
</tr>
<tr>
<td>Methadone</td>
<td>355</td>
<td>486</td>
<td>414</td>
<td>429</td>
<td>394</td>
</tr>
<tr>
<td>Tramadol</td>
<td>132</td>
<td>154</td>
<td>175</td>
<td>220</td>
<td>240</td>
</tr>
<tr>
<td>Codeine</td>
<td>91</td>
<td>88</td>
<td>73</td>
<td>130</td>
<td>136</td>
</tr>
<tr>
<td>Dihydrocodeine</td>
<td>90</td>
<td>109</td>
<td>103</td>
<td>102</td>
<td>86</td>
</tr>
<tr>
<td>Other specified opiate</td>
<td>66</td>
<td>90</td>
<td>80</td>
<td>93</td>
<td>129</td>
</tr>
<tr>
<td>Unspecified opiate</td>
<td>172</td>
<td>131</td>
<td>92</td>
<td>145</td>
<td>169</td>
</tr>
<tr>
<td>Cocaine</td>
<td>144</td>
<td>112</td>
<td>139</td>
<td>169</td>
<td>247</td>
</tr>
<tr>
<td>Any amphetamine</td>
<td>56</td>
<td>62</td>
<td>97</td>
<td>120</td>
<td>151</td>
</tr>
<tr>
<td>Amphetamine</td>
<td>48</td>
<td>46</td>
<td>49</td>
<td>56</td>
<td>85</td>
</tr>
<tr>
<td>MDMA/Ecstasy</td>
<td>8</td>
<td>13</td>
<td>31</td>
<td>43</td>
<td>50</td>
</tr>
<tr>
<td>PMA / PMMA</td>
<td>0</td>
<td>1</td>
<td>20</td>
<td>29</td>
<td>24</td>
</tr>
<tr>
<td>Cannabis / Cannabinoids</td>
<td>11</td>
<td>7</td>
<td>18</td>
<td>13</td>
<td>31</td>
</tr>
<tr>
<td>New psychoactive substances</td>
<td>22</td>
<td>31</td>
<td>55</td>
<td>63</td>
<td>82</td>
</tr>
<tr>
<td>Benzodiazepines</td>
<td>307</td>
<td>293</td>
<td>284</td>
<td>342</td>
<td>372</td>
</tr>
<tr>
<td>Diazepam</td>
<td>186</td>
<td>179</td>
<td>207</td>
<td>228</td>
<td>258</td>
</tr>
</tbody>
</table>
Opioid dependence in Chronic Pain Populations

- Multiple studies
- Difficult to interpret
  - Different populations/ criteria
- Marschall et al - <1%
- Campbell et al - 2%
- Smaller cohorts - up to 20%
Prevalence of opioid dependence in palliative care populations

- Between ages 45-50
  - Approx. 5 million people
  - 0.4% in opioid treatment programme
  - 0.2% die
Prevalence of opioid dependence in palliative care populations

- Schug et al
  - Prospective data on 550 advanced cancer patients with pain and receiving opioids
  - 1 fulfilled criteria for dependence
  - 4 stopped opioids during study period

- Macaluso et al
  - 8/468 cancer inpatients PMH IV drug abuse
  - 6/100 outpatient misuse/ abuse
Passik et al

- 52 oncology inpatients
- Drug taking behaviours and attitudes questionnaire
  - 2 cancer patients had purchased an opioid without prescription
  - 30% cancer patients would consider purchasing illicit drugs if pain was severe
  - 6% currently using marijuana
  - More than 2/3 of cancer patients thought their peers were addicted to drugs
Assessment
Assessing patient for addiction

- Assessment
- Screening tools-opioid risk tool
- Screening questions

### Table 1. Sample Screening Questions

<table>
<thead>
<tr>
<th>Sample Screening Question*</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Are you a smoker?</td>
<td>While not definitive, smoking has become a topic for research and debate regarding whether it is related to aberrant behaviors. At the very least, it represents its own addiction issues.</td>
</tr>
<tr>
<td>2. Do you have a personal or family history of alcoholism?</td>
<td>Similar to smoking, but perhaps more directly related to potential opioid risk, alcoholism has genetic ties and patients with this personally or in the family may have higher risk for opioid addictions.</td>
</tr>
<tr>
<td>3. Have you ever used marijuana?</td>
<td>While hotly debated among various states regarding medicinal properties, marijuana continues to be an illegal substance on a federal level and does give some insight into the potential of patients to engage in illegal activity.</td>
</tr>
<tr>
<td>4. Have you ever purchased pain medications off the street?</td>
<td>Undertreated pain may lead to desperate actions, but purchasing prescription drugs off the street is an indicator of familiarity with illegal sources for medications.</td>
</tr>
<tr>
<td>5. Have you ever been in a substance-use treatment program?</td>
<td>Prior addicts can still be treated for pain concerns, but extra care and structure will likely be needed.</td>
</tr>
</tbody>
</table>

*Keep in mind that endorsement of risk assessment items should never lead to denial of pain treatment, but rather as a screen that more caution will be needed.*
Assessing patient

- History from other sources
- Clinical examination
- If unsure - monitor
  - Prescription refills
  - Multiple prescribers
  - Behaviour
Management
Pain management in patient on ORT

**Table 2. Ten Universal Precautions in Pain Management (Adapted from Gourlay 2005)**

1. Make a diagnosis.
2. Conduct a psychological assessment including risk for addictive disorders.
3. Obtain informed consent.
4. Develop a treatment agreement, in writing or verbally.
5. Assess pain and function before and after interventions.
6. Conduct a trial of rational pharmacotherapy that may include opioids and/or adjunctive medication.
7. Reassess pain and function.
8. Assess the “Four A’s” regularly: analgesia, activity, adverse effects, aberrant behavior.
9. Review pain diagnosis, comorbid conditions, and addictive disorders.
Opioid replacement therapy (ORT)

- Methadone or Buprenorphine
  - Long acting opioids
  - Prevents or reverses withdrawal symptoms
  - Block euphoric effects of heroin/opioids

- Reduces illicit opioid use
  - Retains people in treatment programmes
  - Reduces criminal activity/ mortality/ morbidity

- Does not reduce other drug use
  - Studies generally exclude people with mental health disorders
Opioid replacement therapy (ORT)

- Initiation different. Patient must be in withdrawal before giving first dose

- Methadone
  - Oral liquid 1mg/ml
  - Start low and titrate up slowly
  - Starting dose 10-30 mg
  - Optimal dose 60-120mg
  - Supervised administration
  - Low doses can prevent withdrawal symptoms but higher doses needed to prevent additional drug use
Opioid replacement therapy

- Buprenorphine (Subutex or Suboxone)
  - Sublingual tablets-0.4/2/8 mg
  - Need to wait until withdrawing from opioids to start
  - Starting dose 4mg
  - Can titrate rapidly-safer than methadone
  - Need minimum 12mg to stop illicit opioid use
  - Usual dose 12-32mg
Pain in patients on ORT

- Lower pain threshold
  - Experimental pain models
  - Clinical data

- Tolerance/ cross-tolerance
  - Dovery et al
  - Morphine infusion- people on methadone maintenance therapy and matched controls
Managing pain in patient on ORT

- *Always* confirm daily maintenance dose of Methadone or Buprenorphine with treatment programme

- If not possible prescribe small dose (less than quarter of reported dose)

- Can repeat this dose at 6 hourly intervals if signs of withdrawal until confirm information
Managing pain in patient on ORT

- **Acute pain**
  - Methadone-keep dose same
    - Different medication for acute pain
    - Tapering of pain medication as pain resolves
  - Buprenorphine
    - Either keep dose same and see above or
    - Discontinue a few days before and switch to methadone. Need to re-titrate as no dose equivalence
Managing pain in patient on ORT

- Cancer pain - life-limiting illness

- Need admission if severe pain needing opioid
  1. Continue ORT at same dose and titrate on different opioid
     - May need to switch Buprenorphine to Methadone
  2. Discontinue ORT and titrate on opioid to treat pain and cover withdrawal symptoms
  3. Increase dose and frequency of ORT opioid
     - Methadone
  4. Increase ORT and titrate on other opioid
Managing pain in patient on ORT

- Prognosis/ performance status
- Dose/type/longevity of ORT
- Patient preference
- Risk of ongoing addictive behaviour
- Prescribers
- Efficacy
Managing pain in patient on ORT

- Discharge
  - Performance status
  - Risk assessment
    - Diversion/overdose
  - Methadone/Buprenorphine administration
  - Consider daily ‘pick up’ of painkillers
  - ? Patches
  - Co-ordination with drug dependence team
  - Contracts/urine testing
Managing pain in patient on ORT

- If pain severe and titrating other opioids ineffective consider (Manfredi et al):
  - Increasing Methadone and change dosing interval
    - 43 year old man SCC larynx
      - Methadone 60mg/day
      - Hydromorphone IV 40mg/hr- pain uncontrolled
      - Switched and titrated on methadone-250mg every 4 hours!
    - 55 year old man bone pain secondary metastases
      - Methadone 100mg/day
      - Morphine added and titrated to 120mg in 24 hours
      - Methadone changed to 35mg QDS
      - Methadone titrated up to 100mg QDS, morphine down-titrated and stopped
  - No analogous data for Buprenorphine
Managing pain in patient on ORT

- If unable to swallow
  - On methadone maintenance only either:
    - Give methadone s/c once daily (half oral dose)
    - Stop methadone and start other opioid in CSCI to prevent withdrawal symptoms
    - Put methadone in CSCI
  - On methadone maintenance and other opioid
    - Keep separate (once daily s/c methadone and CSCI opioid/patch)
    - CSCI of methadone and titrate for pain
    - CSCI of other opioid and titrate to ensure no withdrawal
Managing pain in patient on ORT

- Unable to swallow
- Buprenorphine maintenance +/- opioid
  - Long half life (assess if need replacement)
  - Stop buprenorphine and use other opioid in CSCI
  - Buprenorphine in CSCI ???
With cancer patients living longer (including those who will eventually succumb to the disease), some will have pain from stable disease for years while others will have iatrogenic pain syndromes well into survivorship. The need to screen for addiction risk and then individualize opioid therapy in a fashion commensurate with that risk has never been greater……..

Gone are the days of “one size fits all” cancer pain management. The use of an essentially self-titration model (liberal access, month supply per prescription, minimal monitoring, take as much as you need) across the board for all patients is not appropriate.