

# Naltrexone Pathways

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# What is Naltrexone?

- Opiate antagonist which works on the opiate receptors in the brain:
  - It displaces opiates
  - It blocks opiate access
- Prevents the psychotropic effects of opiates (no euphoria, no analgesia)!

# Uses of Naltrexone

- To prevent relapse in former opiate addicts
- Protects people as they re-build their lives (safety net).

# Other uses of Naltrexone

- Can reduce cravings so has been used in the treatment of other addictions:
  - Alcohol
  - Bulimia
  - Autism
  - Self harm

# Side effects

- Depression and Dysphoria
- Insomnia
- Anxiety
- Abdominal pain
- Headache
- Nausea
- Rash (pruritis)

# Side effects

- Depression, Anxiety and Insomnia are all common symptoms amongst people who are newly opiate-free
- Mild Dysphoria has been reported when Naltrexone has been introduced a long time after the cessation of opiate use

Crowley et al (1985)

# Dangers

- Attempts to over-ride the block can lead to an overdose of opiates
- Introducing Naltrexone too soon will cause rapid opiate withdrawal
- Following period brief period of abstinence tolerance reverts to opiate naive.

# Availability

- Tablets
- Implants
- Depot injection

# Oral Naltrexone

- Can achieve a serum level 2ng/ml+
- 50mg will provide a block for 24 hours
- 100mg will provide a block for 48 hours
- 150mg will provide a block for 72 hours

Against 25mg IV heroin

Vereley et al (1976)

# Advantages of tablets

- “One day at a time”
- Available on NHS prescription
- Certainty (almost) of steady serum level

# Disadvantages of tablets

- Compliance
- Supervision
- Taste!

# Implanted Naltrexone

- A 1g implant can achieve a serum level between 3 and 5 ng/ml for 4-5 weeks which is effective against 500mg pure diamorphine

Foster, Brewer & Steele (2003)

- A 3.4g implant achieved serum levels above 2ng/ml for 390 days and above 1ng/ml for 524 days

Hulce et al (2004)

# Advantages of implants

- Increased compliance
- Higher serum naltrexone level

# Disadvantages of implants

- Fixed decision
- Surgical wound
- Cost (not available on the NHS)
- Effects on overdose deaths and suicides is ambiguous
- Females
- Uncertainty of erosion

# Accelerated erosion

- Trying to over-ride the block
- Crack cocaine
- Wound infection
- ? Poor implant technique

# Depot injection

- Recently obtained a US product licence
- Achieves a steady serum level of 1ng/ml for 3-4 weeks

Comer et al (2002)

- Large injection . . .
- Does not achieve opiate blockade beyond 10 – 14 days!