Perinatal mental health: what a GP needs to know

Dr Natalie Smith
Consultant in Perinatal Psychiatry
Thursday 22\textsuperscript{nd} November 2018
Overview

- Why is Perinatal Psychiatry important?
- Post-partum psychiatric disorders
- Prescribing in pregnancy
- Prescribing and breast feeding
- Teesside community perinatal psychiatry service
- Perinatal services in York
- Case Study
- Discussion

making a difference together
Why is perinatal psychiatry important?

- MBBRACE report for 2014-2016
  - Overall
    - 259 deaths (34 = coincidental) therefore 225 deaths in report
    - Death rate 9.78 per 100,000
  - Mental health
    - 71 deaths by suicide
    - Mortality rate 2.9 per 100,000
  - No significant change in maternal suicide rate since 2003
  - 1 in 6 women who died between 6wks and 1yr postnatal, died of suicide (1 in 7 in last enquiry).
Why is perinatal psychiatry important?

- Babies die too.
- Childhood development is affected.
- Bipolar –
  - 50+% relapse postnatally.
  - 25% postnatal psychosis
- It is a treatable illness.
- Medication used may be teratogenic.
- Little research into what medication works in this patient group
Post-partum Psychiatric disorders

- The Blues
- Puerperal psychosis (= post-partum psychosis)
- Post-partum non-psychotic depression
The Blues

- Common – 70% of mothers
- Occurs in first 10 days, peaks at day 3 or 4
- Weepiness
- Irritability
- Variable mood
- Poor concentration and memory
- Short lived
- Related to hormonal changes
- Management - reassure
Puerperal psychosis

- Uncommon. 1-2 per 1000
- Most common diagnosis is bipolar
  - Mania
  - Psychotic depression
  - Mixed states
- Risk factors
  - Previous history of bipolar disorder
  - Family (especially maternal) history of puerperal psychosis
  - Family history of bipolar
  - ?due to fall in oestrogen/sleep disturbance in first postnatal week
  - 50% have no past history or family history.
Puerperal Psychosis cont

● Symptoms
  ● Rapid, early onset. Most develop symptoms in first 7 days
  ● Mood change
  ● Mood congruent delusions and hallucinations
  ● Insomnia, anorexia, poor concentration, hyperactivity.
  ● Risk to self – suicide and risks of mania
  ● Risk to baby – neglect, direct harm and reckless care

● Outlook for this episode good.

● Increased risk of post-partum and non-post-partum episodes
Post-partum non-psychotic depression

- Common: 10-15% of all deliveries
- Risk factors
  - Past history of depression
  - Adverse events around the time of delivery
  - Poor relationship with partner
- Symptoms
  - Low mood
  - Fatigue
  - Excessive anxiety re baby
  - Poor bonding with baby
  - Lack of enjoyment
  - Insomnia, anorexia irritability
- Outlook for this episode is good
- Increased risk of further post-partum and non-post-partum episodes
Red Flags

- ‘Red Flag’ presentations should prompt urgent senior psychiatric assessment
- Recent significant change in mental state or emergence of new symptoms
- New thoughts or acts of violent self-harm
- New and persistent expressions of incompetency as a mother or estrangement from the infant
Amber flags

- Amber flag = indicator of increased future risk
  - Past history of psychotic disorder
  - Family history of bipolar disorder or postpartum psychosis – closely monitor and refer if any change in mental state.
  - Personal and familial patterns of occurrence and re-occurrence
Psychological management

- Lower threshold for psychology
- Highlight perinatal within referral, to ensure prioritisation as per NIHCE
Pharmacological management

- Evidence very poor
- Unable to get ethical approval for research
- Balance risks and benefits of treatment and non-treatment
Risk benefit analysis of prescribing in pregnancy

Risks of treating in pregnancy
- Teratogenicity – MCMs, minor CMs, developmental delay.
- No proven benefit of meds in pregnancy
- Increased birth weight, linked to maternal complications
- Low birth weight

Risk of not treating in pregnancy
- Depression in pregnancy increases risk depression postnatally
- Detrimental effect of mother’s ill-health on parenting ability and infants development
- DSH, suicide +/- infanticide
Teratology

- 50% pregnancies unplanned
- Pregnancies “typically” detected 6 weeks post conception – most sensitive period for teratogenic effects has passed
  - Neural tube development begins 3 weeks post conception
  - Single heart tube developed by 3 weeks post conception
  - Cardiac septa developed 4-5 weeks post conception
  - Valves developed 5 weeks post conception
- Risk MCMs in general population 2-4%

making a difference together
Neurodevelopmental delay

- 2011 study, UK epilepsy pregnancy register. 210 children.
- 4.5% children in control group had evidence of mild or significant developmental delay
- 39.6% children exposed to in utero NaV (OR 26.1)
- 20.4% children exposed to in utero CBZ (OR 7.7)
- 2.9% children exposed to in utero LTG
SSRIs

- No current convincing evidence of increase in cardiac malformations
  - Most recent meta-analysis no increase in risk
  - Some studies suggest small increase in absolute risk, others found no increase
  - Some evidence may be patient group effect
- Citalopram most investigated drug
  - Single study suggested stat sig increase in cardiac malformations
  - Majority of studies failed to demonstrate any increase in risk
  - Meta-analysis concluded no increase in risk
- No evidence increase in risk of other malformations
SSRIs cont

- Persistent Pulmonary Hypertension of the Newborn (PPHN)
  - Risk in general population 1-2 : 1000
  - If take SSRI after 20 weeks gestation risk 3 : 1000
  - 20% mortality
  - PPHN class effect, all SSRIs
  - Theoretical risk with SNRIs

- Poor Neonatal Adaptation Syndrome
  - Majority of neonates healthy
  - May be due to serotonin syndrome and/or withdrawal
  - Jitteriness, tremor, hypoglycaemia, tachypnoea, resp distress, poor temp control, poor feeding, low APGAR, irritability, increased tone

- Possible association with ASD – confounding
Other antidepressants

- What works for the patient?

- Increased rate spont abortion and preterm birth with all anti-dep – thought to be patient group effect and not meds.

- TCAs
  - Older drug, more cumulative evidence
  - Conflicting data but on balance no increased risk cong malf
  - Some evidence increased risk spont abortions, preterm delivery, pre-eclampsia and ASD
  - Amitriptyline, lofepramine, clomipramine have previously been widely used.
Other anti-depressants

- **Venlafaxine**
  - Data too limited to confirm or exclude increase in cong malf
  - Theoretical risk PPHN but no evidence of it yet
  - PNAS including seizures.
  - Monitoring of maternal BP

- **Mirtazapine**
  - Limited evidence does not suggest increased risk cong malf but too limited to exclude increase in risk.
  - PNAS and increased risk neonatal hypoglycaemia
Atypical antipsychotics

- What works in the patient?
- Antipsychotics as a group assoc with slight increase risk cong malf, spont abortions, preterm delivery – thought to be patient group
- GTT recommended for women taking atypicals at 28/40
- Data limited on all atypicals
Atypical antipsychotics

- **Quetiapine**
  - No significant increase in congenital malformations or spontaneous abortions but very limited data
  - PNAS – one study suggested worse for quetiapine than other drugs
  - Increased problems with maternal glycaemic control and fetal weight.

- **Risperidone and olanzapine**
  - Evidence of large and small gestational weight babies
  - Prolactin problems
Prescribing summary

- Contact UKTIS for up-to-date evidence and advice
  - Tel 0344 8920909
- Inform patient and family of risks and benefits
- Keep doses to minimum, and avoid polypharmacy
- What is known to work for the patient?
  - Antidepressants:
    - If well controlled and stable on current drug, continue it
    - No dose tapering at end of pregnancy
    - PPHN is SSRI class effect – not just paroxetine
  - Mood stabilisers:
    - Avoid valproate and lithium
    - Minimise dose, divide daily dose
  - Antipsychotics:
    - Depot increases EPSEs in neonate
Breast-feeding and drugs

- All anti-dep and anti-psychotics excreted in breast milk at low levels
- If baby born at term (>37wks), weighs more than 6lb and otherwise well, able to breast feed on SSRIs and venlafaxine.
- Avoid sedating anti-dep as patient needs to be awake for night feeds.
- Breast-feeding advice for sedating drugs – consider expressing, avoiding feeding in hours after taken nocte dose, or breast feed 24/7.
Breast feeding

- Must inform patient of possible risks
- Inform midwife/HV also
- Monitor baby
- All professionals involved in care of infant should be informed of psychotropic medication use.
- Sertraline expressed at <1% maternal weight adjusted dose.
- Amitriptyline 1%
- Fluoxetine 4%
TEWV community perinatal service

- Pregnant and *History* of severe mental health problems in past (either perinatal or in general psychiatric history) – previous admission to psychiatric hospital, or diagnosis of bipolar, schizophrenia or severe depression.

- Pregnant and *Current* symptoms of severe mental health problems, and initial treatments already attempted in primary care.

- Women with confirmed pregnancy who require specialist advice on prescribing of psychotropics in pregnancy.

- Women of child-bearing age with severe and enduring mental illness who require pre-conception counselling re medication options.

- Women up to one year postnatal with current symptoms of significant mental health problems, and initial treatments already attempted in primary care e.g. severe depression, anxiety, OCD.

- Women up to one year postnatal who require specialist advice on prescribing of psychotropics in breast feeding.
Case Example

- 37, married lady
- Planned and accepted first pregnancy
- Normal, full term delivery
Case History cont

- 7 days post-partum
  - Low mood
  - Unable to cope with baby
  - Heard voices criticising her childcare

- 14 days post-partum
  - Deluded that baby was dying
  - Visions of dead grandmother
  - Took overdose

- Crisis team became involved.
  - Diagnosed with depression with psychotic features
Case history cont

- Admitted to general ward informally (MBU full)
  - Attempted to leave
  - Aggressive
  - Not eating or drinking
  - Deluded baby dying

- Detained under Sect 2 MHA
  - Prescribed anti-depressants, anti-psychotics and anxiolytics
  - Given emergency ECT
Case History cont

- Transferred to MBU
  - Improved but still low and hopeless
  - Deluded re baby dying
  - Deluded food and drink contaminated

- Reunited with baby
  - Arms-length obs with baby
  - Attempted to smother baby

- Improved but then dropped baby
  - Contact stopped
Case History cont

- Treatment continued
  - ECT
  - Psychotropic drugs

- Improved further
  - Delusions ceased
    - Mood brighter
    - Bond with baby improved
    - Took over care of baby with support

- Leaves began

- Discharged.

- Excellent, full recovery. Excellent bond with baby.
Case History cont

- At 18 – depression with psychotic symptoms
- At 33 – depression without psychotic symptoms
- Past psychiatric history not obtained and/or documented
Discussion

making a difference together
Mood stabilisers and Contraception

- Carbamazepine and phenytoin are both enzyme inducers.

- Cannot use CBZ or PHT with Progesterone only OCP or implants (depot ok as bypasses metabolism).

- If on CBZ or PHT, contraception minimum:
  - 2 x standard OCP (50µg)
  - If BTB ↑ to 60 or 75µg
  - Advised to tricycle packs
  - Depoprovera ↑ freq from 12-10 weekly
Mood stabilisers and Contraception

- Emergency contraception if on CBZ/PHT:
  - Normal dosage is 750µg, 12hrs then 750µg
  - Should ↑ to 1.5mg, 12hrs then 750µg

- Lamotrigine plus OCP leads to increased clearance of lamotrigine.

- **NB** swapping women from conventional to atypical antipsychotics. Conventionals lead to high prolactin levels and lack of ovulation. Atypicals do not.
Lithium and Pregnancy

- Epstein’s anomaly –
  - Prolapse of tricuspid valve into right ventricle
  - originally Li thought to ↑ x400. Newer studies suggest Li ↑ risk of all malf’s x3 and cardiac x8.

- Spontaneous malf’s of 2-3% of live births, means 1:10 chance of congenital problem from women taking Li during pregnancy.

- 3rd trimester risk of lithotoxicity to foetus, cardiac arrhythmias, cyanosis and hypertonicity, goitre and neonatal hypothyroidism.
Other psychotropic med’s in pregnancy

- Risk-benefit analysis

<table>
<thead>
<tr>
<th>Unhealthy lifestyle of women with untreated illness associated with:</th>
<th>Untreated antenatal depression and anxiety associated with:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor diet</td>
<td>Low birth weight</td>
</tr>
<tr>
<td>Increased smoking, drinking and drugs</td>
<td>Smaller head circumference</td>
</tr>
<tr>
<td>Lack of exercise</td>
<td>Impaired attachment</td>
</tr>
<tr>
<td>Impaired self-care</td>
<td>Impaired cognition</td>
</tr>
<tr>
<td>Unhygenic living conditions</td>
<td>Behavioural disturbances</td>
</tr>
<tr>
<td>Poor compliance with antenatal care</td>
<td>Relapse or deterioration in mental state</td>
</tr>
<tr>
<td>Suicide</td>
<td></td>
</tr>
</tbody>
</table>
### Other psychotropic med’s in pregnancy

<table>
<thead>
<tr>
<th><strong>TCA’s</strong></th>
<th>Old drugs. Lots data available. No ↑ in congenital malformation rate.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SSRI’s</strong></td>
<td>↑ in spontaneous abortion x 13.3% (Goldstein 1995) *Need more data.</td>
</tr>
<tr>
<td><strong>Li</strong></td>
<td>More detail in Li part of talk.</td>
</tr>
<tr>
<td><strong>CBZ</strong></td>
<td>Spina bifida, craniofacial anomalies, microcephaly and growth retardation.</td>
</tr>
<tr>
<td><strong>VPA</strong></td>
<td>Congenital anomalies, growth retardation, hepatotoxicity, fetal distress. Also children show neurological dysfunction with increased excitability in infancy and up to 6 years.</td>
</tr>
<tr>
<td><strong>Typical antipsychotics</strong></td>
<td>No increase cong malf’s even with high potency, oral and IM. Chlorpromazine and haloperidol have most research data.</td>
</tr>
<tr>
<td><strong>Anticholinergics</strong></td>
<td>Possibly teratogenic. More data needed. Avoid if poss.</td>
</tr>
<tr>
<td><strong>Benozo’s</strong></td>
<td>Increased MCM when used in 1st tri, especially cleft lip and palate. Can produce neonatal toxicity and withdrawal.</td>
</tr>
</tbody>
</table>
References

- Emma Robertson et al. Risk of puerperal and non-puerperal recurrence of illness following bipolar affective puerperal (post-partum) psychosis. *BJPsych* (2005), 186, 258-259
Discussion
UK Epilepsy and Pregnancy Register

- Established 1996
- 3607 outcomes to 31.03.2005
- Cases referred by neurologists, epilepsy nurse specialists, obstetricians, midwives, GPs, any other health professionals, and self-referrals. (Freephone no. and website).
- Observational study.
- Only 40-50% eligible cases in UK registered.
UK Epilepsy and Pregnancy Register

- **Inclusion criteria**
  - Pregnant women with epilepsy, whether or not taking AED, mono or polytherapy.
  - Must be registered BEFORE outcome of pregnancy known.

- **Exclusion criteria**
  - Any prenatal test (USS or blood) shows abnormality before registered.
  - Pregnancy loss in which an abnormality identified before registered.
  - No AED during 1st trimester, but then had 2nd and 3rd trimester exposure.
UK Epilepsy and Pregnancy Register

- Outcome data collected 3 months after expected delivery data.
- Major congenital malformation rate
  \[ \text{live births with MCM + pregnancy losses with MCM} \]
  \[ \text{total live births} + \text{pregnancy losses with MCM} \]
UK Epilepsy & Pregnancy Register

- 4414 pregnancies registered, 3607 full outcome data
- MCM rates:
  - no AED 3.5%
  - Monotherapy 3.7%
  - Polytherapy 6.0%

- Exposed pregnancies, monotherapy MCM rates
  - CBZ 2.2% OR 1.0
  - LTG 3.2% OR 1.44
  - VPA 6.2% OR 2.78

Confidence limits overlap, not statistically significant.
UK Epilepsy and Pregnancy Register

- All drugs have a dose response to MCM rate.
- Valproate in combination with any of others, leads to \( \uparrow \uparrow \uparrow \) MCM rate.
- Study does not give information about effects of folic acid.