Maternal Use Of SSRIs Neonatal Clinical Guideline V2.0

November 2018
Summary

Antenatally identify mothers prescribed SSRI medications

Antenatal counselling by midwives / obstetricians about use in pregnancy, good mental health in pregnancy, breast feeding and withdrawal issues.

Recommend hospital delivery After discussing risks of pulmonary hypertension

Suggest 48 hours observations
But can be flexible if:
1. Oxygen saturation screening is normal
2. No additional concerns about the baby
3. Feeding is going well
4. Information leaflet is given to parents – see appendix
5. Parents know who and how to call for help
6. There is adequate support/telephone/transport at home
1. **Aim/Purpose of this Guideline**

To provide guidance on management of neonates exposed antenatally to maternal selective serotonin reuptake inhibitors (SSRIs) eg. Fluoxetine, and related drugs - selective noradrenaline reuptake inhibitors (SNRIs), eg Venlafaxine and specific serotonergic antidepressants (NaSSAs) eg. Mirtazapine. All drugs will now be described under SSRIs. Aimed at midwifery and neonatal staff

**Data Protection Act 2018 (General Data Protection Regulations – GDPR) Legislation**

The Trust has a duty under the DPA18 to ensure that there is a valid legal basis to process personal and sensitive data. The legal basis for processing must be identified and documented before the processing begins. In many cases we may need consent; this must be explicit, informed and documented. We can’t rely on Opt out, it must be Opt in.

The DPA18 covers how the Trust obtains, hold, record, use and store all personal and special category (e.g. Health) information in a secure and confidential manner. This Act covers all data and information whether held electronically or on paper and extends to databases, videos and other automated media about living individuals including but not limited to Human Resources and payroll records, medical records, other manual files, microfilm/fiche, pathology results, images and other sensitive data.

DPA18 is applicable to all staff; this includes those working as contractors and providers of services.

For more information about your obligations under the DPA18 please see the ‘information use framework policy’, or contact the Information Governance Team rch-tr.infogov@nhs.net

2. **The Guidance**

**Background**

Depression occurs in 7-15% of all pregnancies and is an important perinatal factor affecting neonatal outcome\(^1\). SSRIs are the commonest prescribed pharmacological treatment for depression and anxiety in pregnancy\(^1\). Neonatal abstinence syndrome has been shown to occur in up to 30% of infants exposed to SSRIs in the third trimester of pregnancy\(^2\).

2.1. Adequate treatment of perinatal depression has important consequences for both mother and infant. Undertreated maternal depression is associated with perinatal complications including prematurity and low birth weight. It is therefore vital that the mother has appropriate support and treatment.

2.2. SSRIs and related drugs in pregnancy show no clear association with congenital abnormalities with a debatable small increased risk of congenital heart defects\(^1\).

2.3. Neonatal withdrawal commonly includes tremors, jitteriness, irritability,
muscle tone abnormalities, excess crying, sleep disturbance, tachypnoea and feeding problems\(^1\). Less commonly lethargy, weak cry, hypoglycaemia and convulsions\(^1\).

2.4. Symptoms generally occur within 2 days after birth (occasionally not until days 5-7) and may persist for 2-4 weeks\(^1\).

2.5. There is an association of late perinatal exposure to SSRIs and persistent pulmonary hypertension of the newborn (PPHN)\(^1,3\). A recent large study suggests that there is an increased risk, but that the absolute risk is small\(^6\). This is a serious condition but if recognized and treated early can have a good outcome.

2.6. **Effects during lactation**
SSRIs are excreted into breast milk, with great variability depending upon individual drugs, maternal dose and the infants metabolism. Breast feeding is not discouraged, but fluoxetine with its long elimination half life can accumulate in the newborn. Its use in breast feeding should be discouraged. Low doses of 20mg a day maybe considered safe for breastfeeding\(^4\). Citalopram also has a long half life but not to the extent of fluoxetine and therefore 20mg/day or less is probably safe for breastfeeding. Pumping and discarding of milk during estimated peak concentration is of little value\(^5\).

2.7. **Practical guidance – Antenatal**
Management of maternal depression or anxiety disorder is best evaluated and adjusted before conception to ensure proper treatment during pregnancy. If possible, non-pharmacological treatment is preferred. If pharmacological treatment is indicated, several factors are of influence in the choice of antidepressants: prior response to pharmacological treatment, gestation, intention to breast feed and the safety profile based on the available experience. In general, treatment should be unchanged in patients whose symptoms are well controlled. **Place of delivery and duration of inpatient observations should, whenever possible, be agreed before delivery.** Infant feeding method and information concerning SSRIs and lactation should be provided, and whenever possible the intended feeding method (breast or formula) should be agreed and documented antenatally. There should be very few situations in which the decision on whether or not to initiate and continue breast feeding cannot be made before the baby’s birth. See figure.

2.8. **Practical Guidance – neonatal management after SSRI exposure during 3\(^{rd}\) trimester.**
Published\(^1\) (Archives of Diseases of Childhood ) guidance recommends an observation period of at least 48 hours in hospital. We consider this a sensible and safe recommendation, but we can be flexible about earlier discharge depending upon individual family circumstances and individual babies. We would recommend: A hospital delivery to allow early assessment of the baby.

Before discharge:
1. Oxygen saturation screening to detect early pulmonary hypertension
2. No additional concerns about the baby
3. Feeding is going well
4. Information leaflet is given to parents – see appendix
5. Parents know who and how to call for help
6. There is adequate support/telephone/transport at home
An inpatient scoring systems for withdrawal is recommended – see Appendix 3. A parent information leaflet is copied in Appendix 4.

2.9. **Practical Guidance – Breast Feeding**

Breast feeding should not be discouraged, with one exception – fluoxetine because of its long half life and risk of accumulation. Risks of maternal depression and the benefits of breast feeding have to be considered. See figure.

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**Use of SSRIs/SNRI’s/NaSSA’s during pregnancy and lactation**

- **Preconception**
  - Drug treatment (still) indicated?
    - Yes
    - No
      - Taper medication
      - Monitor relapse
  - Is medication compatible during pregnancy and lactation?
    - Yes
    - No

- **Pregnancy**
  - Preference
    - Sertraline
    - Paroxetine
    - Citalopram
    - Fluoxetine (not during lactation)
  - Limited data
    - Venlafaxine
    - Fluvoxamine
    - Mirtazapine
    - Escitalopram

- **Lactation**
  - Preference
    - Sertraline
    - Paroxetine
  - Consider
    - Fluvoxamine
    - Citalopram
    - Venlafaxine
  - Discourage
    - Fluoxetine

**SSRI/SNRI/NaSSA exposure in third trimester of pregnancy**

**Clinical observation for at least 48 hours**

- Finnegan score every 8 hours
  - Finnegan score < 4 - no SRI-related symptoms
  - Finnegan score 4-7 - mild SRI-related symptoms – wait and see, supportive care is usually sufficient
  - Finnegan score ≥ 8 - serious SRI-related symptoms – intensification of Finnegan scores every 2 hours.
    - If Finnegan scores remain ≥ 8 in 3 subsequent measurements, treatment is indicated, for example with phenobarbitone

**Follow up** - Consider neuro-developmental follow-up in infants with significant SRI-related symptoms

Figure reproduced from reference 1
3. Monitoring compliance and effectiveness

<table>
<thead>
<tr>
<th>Element to be monitored</th>
<th>Key changes in practice recommended by guidance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead</td>
<td>Dr Paul Munyard. Consultant Paediatrician and Neonatologist.</td>
</tr>
<tr>
<td>Tool</td>
<td>Audit. To be included in the Neonatal Clinical Audit Programme. Findings reported to the Child Health Directorate Audit meeting / Governance Meeting.</td>
</tr>
<tr>
<td>Frequency</td>
<td>As dictated by audit findings</td>
</tr>
<tr>
<td>Reporting arrangements</td>
<td>Child Health Directorate Audit and neonatal Clinical Guidelines meetings</td>
</tr>
<tr>
<td>Change in practice and lessons to be shared</td>
<td>Required changes to practice will be identified and actioned within 3 months of audit. A lead member of the team will be identified to take each change forward where appropriate. Lessons will be shared with all the relevant stakeholders.</td>
</tr>
</tbody>
</table>

4. Equality and Diversity

4.1. This document complies with the Royal Cornwall Hospitals NHS Trust service Equality and Diversity statement which can be found in the 'Equality, Diversity & Human Rights Policy' or the Equality and Diversity website.

4.2. Equality Impact Assessment
The Initial Equality Impact Assessment Screening Form is at Appendix 2.
## Appendix 1. Governance Information

<table>
<thead>
<tr>
<th>Document Title</th>
<th>Maternal Use Of SSRIs Neonatal Clinical Guideline V2.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date Issued/Approved:</td>
<td>August 2018</td>
</tr>
<tr>
<td>Date Valid From:</td>
<td>November 2018</td>
</tr>
<tr>
<td>Date Valid To:</td>
<td>November 2021</td>
</tr>
<tr>
<td>Directorate / Department responsible (author/owner):</td>
<td>Paul Munyard Child Health. Neonatal</td>
</tr>
<tr>
<td>Contact details:</td>
<td>01872 252667</td>
</tr>
<tr>
<td>Brief summary of contents</td>
<td>This guideline is designed to provide guidance on the management of infants exposed to SSRI and related drugs in pregnancy.</td>
</tr>
<tr>
<td>Suggested Keywords:</td>
<td>Neonatal. Jaundice. Prolonged. Neonate</td>
</tr>
<tr>
<td>Target Audience</td>
<td>RCHT</td>
</tr>
<tr>
<td>Date revised:</td>
<td>August 2018</td>
</tr>
<tr>
<td>This document replaces (exact title of previous version):</td>
<td>MATERNAL USE OF SSRIs – NEONATAL CLINICAL GUIDELINE V1.0</td>
</tr>
<tr>
<td>Approval route (names of committees)/consultation:</td>
<td>Paediatric consultants. Child Health Audit and Neonatal Guidelines meeting.</td>
</tr>
<tr>
<td>Divisional Manager confirming approval processes</td>
<td>Tunde Adewopo</td>
</tr>
<tr>
<td>Name and Post Title of additional signatories</td>
<td>Not Required</td>
</tr>
<tr>
<td>Name and Signature of Divisional/Directorate Governance Lead confirming approval by specialty and divisional management meetings</td>
<td>{Original Copy Signed} Name: Caroline Amukusana</td>
</tr>
<tr>
<td>Signature of Executive Director giving approval</td>
<td>{Original Copy Signed}</td>
</tr>
<tr>
<td>Publication Location (refer to Policy on Policies – Approvals and Ratification):</td>
<td>Internet &amp; Intranet</td>
</tr>
</tbody>
</table>


6. Antidepressant Use Late in Pregnancy and Risk of Persistent Pulmonary Hypertension of the Newborn
Krista F. Huybrechts, MS, PhD1,2; Brian T. Bateman, MD, MSc1,2,3; Kristin Palmsten, ScD4; Rishi J. Desai, PhD1; Elisabetta Patorno, MD, DrPH1,2; Chandrasekar Gopalakrishnan, MD, MPH1; Raisa Levin, MS1; Helen Mogun, MS1; Sonia Hernandez-Diaz, MD, DrPH5

Neonatal abstinence syndrome – a neonatal clinical guideline – RCHT guideline

Training Need Identified? No training needs identified
Version Control Table

<table>
<thead>
<tr>
<th>Date</th>
<th>Version No</th>
<th>Summary of Changes</th>
<th>Changes Made by (Name and Job Title)</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.2.15</td>
<td>V1.0</td>
<td>Initial Issue and formatting</td>
<td>Dr Paul Munyard Neonatal Formatted by Paul Munyard</td>
</tr>
<tr>
<td>Aug 2018</td>
<td>V 2.0</td>
<td>Added appendix 3 with scoring chart and symptom list. Added flow chart</td>
<td>Dr Paul Munyard Neonatal consultant</td>
</tr>
</tbody>
</table>

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This document is to be retained for 10 years from the date of expiry. This document is only valid on the day of printing

Controlled Document
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## Appendix 2. Initial Equality Impact Assessment Form

*This assessment will need to be completed in stages to allow for adequate consultation with the relevant groups.*

<table>
<thead>
<tr>
<th>Name of the strategy / policy / proposal / service function to be assessed</th>
<th>Maternal Use Of SSRIs Neonatal Clinical Guideline V2.0</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Directorate and service area: Child Health Directorate. Neonatal Unit</td>
</tr>
<tr>
<td></td>
<td>Is this a new or existing Policy? Existing</td>
</tr>
<tr>
<td>Name of individual completing assessment:</td>
<td>Paul Munyard</td>
</tr>
</tbody>
</table>

|  | Telephone: 01872252681 |

### 1. Policy Aim*

Who is the strategy / policy / proposal / service function aimed at?

To provide guidance on management of neonates exposed antenatally to maternal selective serotonin reuptake inhibitors (SSRIs) eg. Fluoxetine, and related drugs - selective noradrenaline reuptake inhibitors (SNRIs), eg Venlafaxine and specific serotonergic antidepressants (NaSSAs) eg. Mirtazapine. Aimed at midwifery and neonatal staff

### 2. Policy Objectives*

As above

### 3. Policy – intended Outcomes*

As above

### 4. *How will you measure the outcome?*

Audit

### 5. Who is intended to benefit from the policy?

Neonates and their parents

### 6a Who did you consult with

<table>
<thead>
<tr>
<th>Workforce</th>
<th>Patients</th>
<th>Local groups</th>
<th>External organisations</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

b). Please identify the groups who have been consulted about this procedure.

**Please record specific names of groups**

Neonatal Guidelines Group approved guideline

### What was the outcome of the consultation?

Guideline ratified
7. The Impact
Please complete the following table. **If you are unsure/don’t know if there is a negative impact you need to repeat the consultation step.**

<table>
<thead>
<tr>
<th>Equality Strands:</th>
<th>Yes</th>
<th>No</th>
<th>Unsure</th>
<th>Rationale for Assessment / Existing Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td>x</td>
<td>No area indicated</td>
</tr>
<tr>
<td>Sex (male, female, trans-gender / gender reassignment)</td>
<td></td>
<td></td>
<td>x</td>
<td>No area indicated</td>
</tr>
<tr>
<td>Race / Ethnic communities /groups</td>
<td></td>
<td></td>
<td>x</td>
<td>Information will be provided in the preferred language of the parents.</td>
</tr>
<tr>
<td>Disability - Learning disability, physical impairment, sensory impairment, mental health conditions and some long term health conditions</td>
<td></td>
<td></td>
<td>x</td>
<td>This guideline provides good guidance on how to support women with mental health concerns during and after pregnancy. Written information will be provided in a format to meet the parents needs e.g. easy read, audio etc.</td>
</tr>
<tr>
<td>Religion / other beliefs</td>
<td></td>
<td></td>
<td>x</td>
<td>No area indicated</td>
</tr>
<tr>
<td>Marriage and Civil partnership</td>
<td></td>
<td></td>
<td>x</td>
<td>No area indicated</td>
</tr>
<tr>
<td>Pregnancy and matenity</td>
<td></td>
<td></td>
<td>x</td>
<td>No area indicated</td>
</tr>
<tr>
<td>Sexual Orientation, Bisexual, Gay, heterosexual, Lesbian</td>
<td></td>
<td></td>
<td>x</td>
<td>No area indicated</td>
</tr>
</tbody>
</table>

**You will need to continue to a full Equality Impact Assessment if the following have been highlighted:**

- You have ticked “Yes” in any column above and
- No consultation or evidence of there being consultation - this **excludes** any **policies** which have been identified as not requiring consultation. **or**
- Major this relates to service redesign or development

8. Please indicate if a full equality analysis is recommended. | Yes | No | X |

9. **If you are not** recommending a Full Impact assessment please explain why.

No area indicated
Keep one copy and send a copy to the Human Rights, Equality and Inclusion Lead
c/o Royal Cornwall Hospitals NHS Trust, Human Resources Department, Knowledge Spa,
Truro, Cornwall, TR1 3HD

This EIA will not be uploaded to the Trust website without the signature of the
Human Rights, Equality & Inclusion Lead.

A summary of the results will be published on the Trust’s web site.

Signed _____Paul Munyard__________
Date ____11/09/2018_____________
Appendix 3  
**Neonatal Abstinence Syndrome Symptom Assessment Chart**

Assess the baby for signs of withdrawal detailed below. Symptoms should be documented by severity. If symptoms are mild, nursing interventions supporting mother and baby should enable non-pharmacological treatment of the withdrawal (see management guide rear of chart) Babies displaying any consecutive assessment as ‘Moderate’ symptoms should be conveyed to the neonatal SHO for review and possible drug treatment. **Severe symptoms should be reported immediately.** Frequency of assessment should depend on severity of symptoms but **4 hourly as a minimum for the first 72 hours after birth.** NNU admission and separation from the mother should be avoided.

SSRI: **ADVISE 48 hours observations for SSRI use in agreement with the family.** Give leaflet to mother. **All babies monitored for SSRI withdrawal should have Pulse Oximetry checked with obs in the first 24hrs.** **TICK symptom box for most severe symptom displayed**

### Symptoms Table

<table>
<thead>
<tr>
<th>SYMPTOM</th>
<th>MILD</th>
<th>MODERATE</th>
<th>SEVERE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CNS</strong></td>
<td>Increased muscle tone, irritable. Sleep disturbance, mild tremors when disturbed</td>
<td>High pitched cry, agitation, tremors when undisturbed, desire to feed frequently</td>
<td>Severe tremors, inability to settle post feed, frantic sucking, Constant high pitch crying, Seizures*</td>
</tr>
<tr>
<td><strong>Metabolic, Vasomotor, Respiratory</strong></td>
<td>Yawning, Sneezing, ‘Snuffy’</td>
<td>Pyrexia, temperature to 37.6°C in light wrap</td>
<td>Sweating, unstable temperature/pyrexia over 37.6°C, excess weight loss. Hypoglycaemia &lt;2mmol, Persistent tachypnoea+ nasal flare/recession Skin mottling. 02 saturation under 92%</td>
</tr>
<tr>
<td><strong>Gastrointestinal</strong></td>
<td>Poor feeding, mild regurgitation post feeds sore nappy area</td>
<td>Excessive sucking, vomiting, Loose stools, skin excoriation</td>
<td>Poor feeding ability, severe vomiting, diarrhoea, worsening skin excoriation</td>
</tr>
</tbody>
</table>

Date and Time

<table>
<thead>
<tr>
<th>Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respiratory rate</td>
</tr>
<tr>
<td>Heart Rate</td>
</tr>
</tbody>
</table>

02 saturation (SSRI babies)

<table>
<thead>
<tr>
<th>Mild symptoms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moderate symptoms</td>
</tr>
<tr>
<td>Severe symptoms</td>
</tr>
</tbody>
</table>
**NON PHARMACOLOGICAL INTERVENTIONS TO SUPPORT CARE**

Various interventions are suggested in the literature to support and educate mothers/carers to recognise symptoms of NAS and manage these babies who are extremely responsive to external stimuli. Symptoms can significantly increase in severity with environmental or physical over stimulation.

<table>
<thead>
<tr>
<th>SYMPTOM</th>
<th>INTERVENTION</th>
</tr>
</thead>
</table>
| High pitched cry/irritability  | • Soothe infant by swaddling, holding firmly and close to the body, preferably before he/she is out of control  
                                  • A baby carrier can be encouraged with slow movements and gentle talking. Avoid stroking or ‘jiggling’ baby up and down  
                                  • Encourage use of a dummy whilst symptoms persist                                                                                          |
| Inability to sleep             | • Reduction of environmental stimuli (noise, light, smell)  
                                  • Reduce extra visitors to a minimum  
                                  • Organise care to minimise handling  
                                  • Lightly wrap baby/ provide ‘nest’ barrier to support limbs                                                                                  |
| Frantic sucking of fists       | • Use mittens to prevent skin trauma  
                                  • Offer dummy for non-nutritive sucking                                                                                                           |
| Nasal stuffiness               | • Suction nasopharynx when necessary. Can be treated with saline nasal drops. If hindering feeding, rest between sucking attempts.                                                                           |
| Poor or disorganised feeding   | • Feed small amounts more frequently, may need 2—3hourly feeds. Check blood glucose pre feed if intake concerns/associated tremors  
                                  • Maintain fluid and calorie intake required for infant’s weight: 60ml/kg/24hrs day1, 90ml/kg day 2, 120ml/kg day 3, 150ml/kg day 4 onwards  
                                  • Observe and support breastfeeding  
                                  • Consider tube feeding to maintain hydration. Wrap securely during feed and reduce stimuli to allow baby to organise him/herself. Avoid over feeding a demanding baby – limit ‘constant’ breastfeeding with alternative measures |
| Regurgitation/ vomiting        | • Measure and record intake  
                                  • Elevate head of the cot  
                                  • May need IV fluids if vomiting persists  
                                  • Observe nappies for urine output  
                                  • Weigh baby each 48hrs of observation period                                                                                               |
| Hypertonicity of limbs         | • Use soft sheets to reduce pressure & change position frequently. Put baby in a side lying position and flex the spine as well as the head to bring the infant out of the hyperextended position( with monitoring)  
                                  • Place a soft roll in between the knees to abduct the legs and reduce muscle tone. Use regular warm baths and gentle massage with passive limb exercises if tolerated. Slow gentle handling. |
| Tremors                        | • Change position frequently to prevent excoriation, use barrier cream. Closely observe bony prominences; knees, chin, etc.  
                                  • Minimise handling. Support limbs during care giving.                                                                                       |
| Loose stools / Sore bottom     | • Frequent nappy changes to prevent sore bottom. Use barrier cream FROM DAY 1 to prevent soreness. Observe for dehydration                                                                               |
APPENDIX 4

Patient Information for mothers who are taking Antidepressant (SSRI and similar drugs) use in pregnancy and Breast feeding.

Is it important to treat anxiety and depression in pregnancy?
It is important for the health of mothers and babies that depression and anxiety is treated effectively, this improves the outcome for the babies. The treatments should be decided ideally before pregnancy, but certainly before delivery, with your doctors, including advice on breast feeding.

How common is withdrawal from SSRIs?
Babies whose mothers are on commonly prescribed antidepressants- known as SSRIs (and similar medications) have become used to the drug in their system before birth and can show withdrawal symptoms after birth. Withdrawal is quite common, with about 3 babies in every 10 showing withdrawal symptoms. These occur particularly in the first 2 days of life, and occasionally longer. The symptoms of withdrawal include jitteriness, agitation, feeding difficulties and breathing difficulties. Most of these are mild and the babies improve without any treatment. Rarely more severe problems occur including drowsiness, dehydration, convulsions and low blood sugars – when medical help should be sought immediately (about 1 in 300 babies withdrawing).

Are there other serious complications?
There is a small risk of a serious condition affecting blood flow to the lungs, called persistent pulmonary hypertension, this requires urgent medical attention. A new large study has shown that the risk is very small, and having the oxygen saturation test after birth will identify most babies with this condition early.

What is recommended?
Published guidance in the journal of paediatrics in the UK recommends a hospital delivery and 48 hours of hospital observation. We think this is sensible and safe advice, but we can be flexible about earlier discharge depending upon individual family circumstances and individual babies.
We would recommend: A hospital delivery to allow early assessment of the baby
Before discharge check:
- Oxygen saturation screening to detect early pulmonary hypertension
- No additional concerns about the baby
- Feeding is going well
- Information leaflet is given to parents – see appendix
- Parents know who and how to call for help
- There is adequate support/telephone/transport at home

We would encourage breast feeding with the exception of the medicine called fluoxetine, there are other similar drugs which are less likely to have effects on the baby, and this should be discussed in advance between the mother and her doctors.

Clearly the risks and benefits to the mother and her baby need to be balanced in every case, taking the above guidance into account.