MULTIPLE PREGNANCY - CLINICAL GUIDELINE

1. Aim/Purpose of this Guideline
1.1. To provide Midwives and Obstetricians with guidance of the management of multiple pregnancies during the antenatal and intrapartum period.

2. The Guidance
2.1. Any multiple pregnancy carries increased risk compared to a singleton pregnancy. Dichorionic and monochorionic pregnancies share increased risk of Pre-term birth, Pre-eclampsia, Fetal Growth Restriction and Post-Partum Haemorrhage. Monochorionic pregnancies have the additional risk of Feto-Fetal Transfusion Syndrome (FFTS) which requires screening during the pregnancy.

2.2. Diagnosis
Aim to determine the following in the same first trimester scan when crown–rump length measures from 45 mm to 84 mm (at approximately 11+0 weeks to 13+6 weeks).
- Gestational age
- Chorionicity (Refer to Section 2.3)
- The risk of Down’s Syndrome

Assign nomenclature to the babies (e.g. upper and lower, or left and right) and document. Use the largest baby to measure gestational age.

2.3. Chorionicity
Determine chorionicity using:
- Number of placental masses and/or the lambda or T-sign and/or membrane thickness
- For women presenting after 14+0 weeks, use all of the above features and discordant fetal sex

Once the diagnosis is made a multiple pregnancy proforma should be commenced (Appendix 3) and a referral to a Consultant Obstetrician arranged.

2.4. Antenatal Management and Completion of Multiple Pregnancy Proforma
A plan should be made by the Obstetrician in agreement with the woman and documented on the Multiple Pregnancy Proforma (Appendix 3). The frequency of Midwife and Consultant visits should be established, and frequency of ultrasound assessments made (Appendix 3). Mode and timing of delivery should be discussed; this should include the risks and benefits.
- All women with multiple pregnancies should be advised that birth should take place in the Consultant Unit
- All monochorionic twins will be scanned in the fetal medicine department on a 2 weekly basis from 16 weeks to screen for FFTS
- Growth scans for dichorionic pregnancies should be done every 4 weeks from 20 weeks
- Admission should be arranged on clinical grounds as for singleton pregnancies
- Timing for elective delivery (induction or Caesarean Section) should be discussed with the Consultant
• Be aware of higher incidence of anaemia in women with twin and triplet pregnancies. Perform Full Blood Count (FBC) at 20-24 weeks to identify early supplementation with iron or folic acid.

2.5. Hypertension
Refer to the National Institute for Health and Clinical Excellence (NICE) Guideline on hypertension in pregnancy.

- Measure blood pressure (BP) and test urine for proteinuria at each appointment
- Advise women to take 75 mg of aspirin daily from 12 weeks until the birth of the babies if they have one or more of the following risk factors for hypertension:
  - First pregnancy
  - Age 40 years or older
  - Pregnancy interval of more than 10 years
  - BMI of 35 kg/m2 or more at first visit
  - Family history of Pre-eclampsia

2.6. Feto-Fetal Transfusion Syndrome
Do not monitor for feto-fetal transfusion syndrome (FFTS) in the first trimester.

- If any sign of FFTS follow up will be at the discretion of the Fetal Medicine Consultant
- All women with a monochorionic twin pregnancy must be informed of the possibility of FFTS
- Sudden increase in girth
- Sudden onset of pain (not contractions)

2.7. Frequency of Antenatal Appointments
2.7.1. Monochorionic Diamniotic (MCDA) Twins
- From 16 weeks will be seen by the Specialist Midwife Ultrasonographers and will be scanned for evidence of FFTS every 2 weeks
- On some of these appointments they will also have their BP and urine checked (Appendix 3)
- 19-21 weeks appointment with the Fetal Medicine Consultant
- 32 -34 weeks appointment with the Area Consultant Obstetrician to discuss delivery
- In addition to this the woman should also be seen by her Community Midwife (CMW) as per schedule of appointments (Appendix 3)

2.7.2. Dichorionic Diamniotic (DCDA) Twins
- 14-16 weeks appointment with the Area Consultant Obstetrician
- 34-36 weeks appointment with the Area Consultant Obstetrician to plan delivery
- In addition to this the woman should be seen by her CMW after each scan and her BP and urine checked at each of these visits (Appendix 3)

2.8. Mode and Timing of Delivery
• There is no overwhelming current evidence as to the optimum mode or timing of delivery. Information should be provided for the woman on the risks and benefits of different modes of delivery. The provision of this information, discussions and the plan for the agreed place and timing of birth must be documented in the woman’s notes.
• In uncomplicated MCDA pregnancies it may be best to further discuss delivery at the 32-34 week visit with planned delivery between 36 and 37 weeks. If there are no specific complications or contraindications vaginal delivery is appropriate.
• In DCDA pregnancies discussion can take place between 34 and 36 weeks with delivery planned after 37 weeks unless there are complications requiring earlier intervention.
• If an Elective Caesarean Section (ELCS) is planned maternal steroids for fetal lung maturation should be recommended if delivery is before 39+0 weeks.

2.9. Intrapartum Management

2.9.1. Management of First Stage of Labour
• Refer to RCHT Care of a Woman In 1st and 2nd Stage Of Labour – Clinical Guideline
• Apart from the requirement for continuous electronic fetal monitoring (EFM) of both twins the management of the first stage is no different than with a singleton pregnancy.
• It should be very clearly marked on the EFM trace which is Twin 1 and which is Twin 2.
• There should be early recourse to the use of a fetal scalp electrode on Twin 1 if there is difficulty with monitoring.
• The use of a Syntocinon infusion requires the same care and indications as for singleton pregnancy.
• Epidural analgesia is recommended as it allows more control after delivery of the first twin, and hence increased safety for the second twin.
• EFM changes for the first twin can be managed as for a singleton, but any concerning features of the EFM of the 2nd twin (dependent on quality and severity) may require operative intervention.

2.9.2. Management of Second Stage of Labour
• Refer to RCHT Care of a Woman In 1st and 2nd Stage Of Labour – Clinical Guideline.
• The management of the second stage of labour for the first twin should not deviate from that outlined for a singleton pregnancy – except that the whole delivery is led, by an experienced obstetrician who remains present in the room or immediately available throughout the second and third stage.
• The resuscitaires should be prepared and the on-call ANNP/SHO for neonatology should be informed when the woman achieves full cervical dilatation/begins active pushing.
• The on-call anaesthetist should also be alerted.

2.9.3. After Delivery of the First Baby
• Deferred cord clamping as normal– and ensure clear identification of the first twin cord.
• Palpate the maternal abdomen.
• Ensure a longitudinal lie (confirm with ultrasound if any doubt).
• Syntocinon should be commenced.
  Alert: The maternal contractions may cease after the first delivery: there is greater urgency with monochorionic twins than dichorionic twins to re-establish the contractions.
A vaginal examination should be performed to check the presenting part is entering the pelvis. Membranes must NOT be ruptured until the presenting part is within the pelvis.

- Standard management of second stage, but with low threshold for assistance
- Continue with CTG monitoring for Twin 2

### 2.9.4. Management of Third Stage of Labour

- Refer to RCHT Third Stage of Labour – Clinical Guideline

**Alert:** Syntometrine should only be given following the birth of the 2nd twin.

- 40IU Syntocinon in 500ml Normal Saline at a rate of 125 mls per hour should be commenced to run over 4 hours because of the increased risk of Post-partum Haemorrhage. Otherwise management follows standard guidance.

### 2.10. Management of Higher Multiples and Monoamniotic Twin Pregnancies

Triplets, or greater multiples and monoamniotic twins are uncommon and all will require individualised Consultant led care antenatally with clear planning of any interventions. Delivery will usually be by early ELCS.

### 2.11. Documentation

- An Information and Management Plan for Multiple Pregnancy Proforma must be commenced on diagnosis of the multiple pregnancy and filed in the woman’s hand held notes. It is the obstetrician’s responsibility to update this proforma at each contact with the woman.
- Complete a Twin Vaginal Delivery Proforma
- Complete a Caesarean Proforma if pertinent

### 3. Monitoring compliance and effectiveness

<table>
<thead>
<tr>
<th>Element to be monitored</th>
<th>The audit will take into account record keeping by Obstetricians, Midwives and other Allied Health Professionals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead</td>
<td>Maternity Risk Manager</td>
</tr>
<tr>
<td>Tool</td>
<td>Did the woman have an Information &amp; Management Plan for multiple pregnancies filed in her health records</td>
</tr>
<tr>
<td></td>
<td>Has it been documented that information has been provided to the woman on the risks and benefits of different modes of delivery</td>
</tr>
<tr>
<td></td>
<td>Has a plan been documented to agree the timing and place of birth</td>
</tr>
<tr>
<td></td>
<td>Was it clearly identified on the EFM trace which was Twin 1 and which was Twin 2</td>
</tr>
<tr>
<td></td>
<td>Was a suitably experienced Obstetrician available/present during the second stage, delivery and third stage of labour</td>
</tr>
<tr>
<td></td>
<td>Following delivery of the first twin was the lie of the second twin clearly identified</td>
</tr>
<tr>
<td></td>
<td>Following the birth of the 1st twin was Syntocinon commenced or a rationale documented if not commenced</td>
</tr>
<tr>
<td></td>
<td>Following the birth of Twin 2 was a Syntocinon infusion</td>
</tr>
<tr>
<td>Frequency</td>
<td>1% or 10 sets, whichever is the greater, of all health records of women who have had multiple births (of which at least half are vaginal births), will be audited over the lifetime of the guideline or earlier if indicated.</td>
</tr>
<tr>
<td>Reporting arrangements</td>
<td>Maternity Risk Management Forum or Clinical Audit Forum</td>
</tr>
<tr>
<td>Acting on recommendations and Lead(s)</td>
<td>Any deficiencies identified during the audit they will be discussed at the Maternity Risk Management Meeting and an action plan developed. Action leads will be identified and a time frame for the action to be completed. The action plan will be monitored by the Maternity Risk Manager until all actions complete.</td>
</tr>
<tr>
<td>Change in practice and lessons to be shared</td>
<td>Risk Management Newsletter. Clinical Audit Forum</td>
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</tbody>
</table>

### 4.1. Equality and Diversity

This document complies with the Royal Cornwall Hospitals NHS Trust service Equality and Diversity statement.

**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>MULTIPLE PREGNANCY – CLINICAL GUIDELINE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date Issued/Approved:</td>
<td>20(^{th}) October 2015</td>
</tr>
<tr>
<td>Date Valid From:</td>
<td>31(^{st}) October 2015</td>
</tr>
<tr>
<td>Date Valid To:</td>
<td>31(^{st}) October 2018</td>
</tr>
</tbody>
</table>
| Directorate / Department responsible (author/owner): | Dr Karen Watkins  
Obs and Gynae Directorate |
| Contact details:        | 01872 252729                           |
| Brief summary of contents | To provide Midwives and Obstetricians with guidance of the management of multiple pregnancies in the ante natal and intrapartum period |
| Suggested Keywords:    | Twins, Syntocinon, multiple, triplets, fetal, feto, choriocicity, transfusion monochorionic MCDA, DCDA, dichorionic |
| Target Audience        | RCHT PCH CFT KCCG ✓                   |
| Executive Director responsible for Policy: | Medical Director |
| Date revised:          | 20\(^{th}\) October 2015               |
| This document replaces (exact title of previous version): | Clinical guideline for Management of Multiple pregnancy |
| Approval route (names of committees)/consultation: | Maternity Guidelines Group  
Obs and Gynae Directorate  
Divisional Board for noting |
| Divisional Manager confirming approval processes | Head of midwifery |
| Name and Post Title of additional signatories | None required |
| Signature of Executive Director giving approval | {Original Copy Signed} |
| Publication Location (refer to Policy on Policies – Approvals and Ratification): | Internet & Intranet ✓ Intranet Only |
| Document Library Folder/Sub Folder | Clinical/Midwifery and Obstetrics |
**Links to key external standards**

<table>
<thead>
<tr>
<th>CNST 3.4</th>
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<tbody>
<tr>
<td>• RCHT (2012) Care of a Woman in 1&lt;sup&gt;st&lt;/sup&gt; and 2&lt;sup&gt;nd&lt;/sup&gt; Stage of Labour – Clinical Guideline</td>
</tr>
<tr>
<td>• RCHT (2015) Third Stage of Labour – Clinical Guideline</td>
</tr>
<tr>
<td>• RCOG Green top Guideline No 51</td>
</tr>
<tr>
<td>• NICE (2011) Clinical Guideline Multiple Pregnancy</td>
</tr>
</tbody>
</table>

**Related Documents/ References.**

- RCHT (2012) Care of a Woman in 1<sup>st</sup> and 2<sup>nd</sup> Stage of Labour – Clinical Guideline
- RCHT (2015) Third Stage of Labour – Clinical Guideline
- RCOG Green top Guideline No 51
- NICE (2011) Clinical Guideline Multiple Pregnancy

**Training Need Identified?**

No

**Version Control Table**

<table>
<thead>
<tr>
<th>Date</th>
<th>Versio n No</th>
<th>Summary of Changes</th>
<th>Changes Made by (Name and Job Title)</th>
</tr>
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<tbody>
<tr>
<td>2006</td>
<td>V1.0</td>
<td>Initial Issue</td>
<td>Mr Jones Consultant Obstetrician</td>
</tr>
<tr>
<td>November 2010</td>
<td>V1.1</td>
<td>Addition of ante natal management.</td>
<td>Mr Jones Consultant Obstetrician</td>
</tr>
<tr>
<td>February 2012</td>
<td>V1.2</td>
<td>Updated in line with NICE guidance.</td>
<td>Dr Karen Watkins Consultant Obstetrician</td>
</tr>
<tr>
<td>September 12</td>
<td>V1.3</td>
<td>Changes to compliance monitoring tool only</td>
<td>Dr Karen Watkins Consultant Obstetrician</td>
</tr>
<tr>
<td>20&lt;sup&gt;th&lt;/sup&gt; October 2015</td>
<td>V1.4</td>
<td>Minor changes only</td>
<td>Dr Karen Watkins Consultant Obstetrician</td>
</tr>
</tbody>
</table>

**All or part of this document can be released under the Freedom of Information Act 2000**
### Appendix 2. Initial Equality Impact Assessment Form

| Name of the strategy / policy / proposal / service function to be assessed (hereafter referred to as *policy*) (Provide brief description): MULTIPLE PREGNANCY – CLINICAL GUIDELINE |
| Directorate and service area: Obs & Gynae Directorate | Is this a new or existing Policy? Existing |
| Name of individual completing assessment: Elizabeth Anderson | Telephone: 01872 252879 |

1. **Policy Aim***
   - **Who is the strategy / policy / proposal / service function aimed at?**
   - To provide Midwives and Obstetricians with guidance of the management of multiple pregnancies in the ante natal and intrapartum period

2. **Policy Objectives***
   - To ensure multiple pregnancies are managed as per NICE evidence based guidance

3. **Policy – intended Outcomes***
   - Safe delivery of multiple pregnancies

4. **How will you measure the outcome?***
   - See Compliance Monitoring Tool

5. **Who is intended to benefit from the policy?***
   - All pregnant women with a multiple pregnancy

6a) **Is consultation required with the workforce, equality groups, local interest groups etc. around this policy?***
   - No

   b) **If yes, have these *groups been consulted?***
   - N/A

   C) **Please list any groups who have been consulted about this procedure.***
   - N/A

7. **The Impact***

   Please complete the following table.

   | Are there concerns that the policy could have differential impact on: |
   | Equality Strands: | Yes | No | Rationale for Assessment / Existing Evidence |
   | Age | X | | All pregnant women with a multiple pregnancy |

MULTIPLE PREGNANCY - CLINICAL GUIDELINE

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<table>
<thead>
<tr>
<th><strong>Sex</strong> (male, female, trans-gender / gender reassignment)</th>
<th>X</th>
<th>All pregnant women with a multiple pregnancy</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Race / Ethnic communities /groups</strong></td>
<td>X</td>
<td>All pregnant women with a multiple pregnancy</td>
</tr>
<tr>
<td><strong>Disability - learning disability, physical disability, sensory impairment and mental health problems</strong></td>
<td>X</td>
<td>All pregnant women with a multiple pregnancy</td>
</tr>
<tr>
<td><strong>Religion / other beliefs</strong></td>
<td>X</td>
<td>All pregnant women with a multiple pregnancy</td>
</tr>
<tr>
<td><strong>Marriage and civil partnership</strong></td>
<td>X</td>
<td>All pregnant women with a multiple pregnancy</td>
</tr>
<tr>
<td><strong>Pregnancy and maternity</strong></td>
<td>X</td>
<td>All pregnant women with a multiple pregnancy</td>
</tr>
<tr>
<td><strong>Sexual Orientation, Bisexual, Gay, heterosexual, Lesbian</strong></td>
<td>X</td>
<td>All pregnant women with a multiple pregnancy</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 service redesign or development

8. Please indicate if a full equality analysis is recommended.  
   [ ] Yes  [x] No

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

N/A

<table>
<thead>
<tr>
<th>Signature of policy developer / lead manager / director</th>
<th>Date of completion and submission</th>
</tr>
</thead>
<tbody>
<tr>
<td>Karen Watkins</td>
<td>20th October 2015</td>
</tr>
</tbody>
</table>

| Names and signatures of members carrying out the Screening Assessment |
|-------------------------------------------------------------|---------------------------------|
| 1. Elizabeth Anderson                                       | 2.                               |

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

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

Signed: Elizabeth Anderson
Date: 20th October 2015
Appendix 3:

Information & Management Plan for multiple Pregnancies

Chorionicity:  DCDA □  MCDA □

- **Schedule of appointments** as per overleaf .......................................................... □
  Blood tests as per singleton pregnancy ................................................................. □.
- **Anaemia** – symptoms - tiredness, shortness of breath ........................................ □.
  An additional FBC at 20 -24 weeks (to identify a need for iron or folic acid) . □.
- **Pre-term birth, and use of steroids** ................................................................. □.
  Report any contractions/ SROM / bleeding promptly ........................................... □.
- **Pre-eclampsia** – report symptoms - headache, visual disturbances, RUQ pain . □.
  BP and urine check needed each visit ...................................................................... □.
  Aspirin after 12 weeks if another risk factor for pre-eclampsia* ......................... □.
- **IUGR** – identified by scans ............................................................................... □.
  For DCDA – 4 weekly growth scans, For MCDA – 2 weekly scans ................. □.
- **TTTS -MCDA ONLY**– Symptoms to report- increased girth, pain, tense uterus . □.
  Screening for TTTS is by scan every 2 weeks from 16 weeks ........................... □.
- **Timing of elective delivery**
  From 36 wks for MCDA twins, and from 37 wks DCDA twins ....................... □
  Earlier admission / delivery if clinically necessary ............................................ □.
- **Delivery** – will be in consultant unit ................................................................. □.
  Explanation of who will be present at delivery and their roles ........................... □.
  Risks / benefits of vaginal delivery and CS discussed ...................................... □.
  Epidural advisable ............................................................................................... □.
  Syntocinon infusion after delivery of first twin .................................................. □.
- **PPH** – Active management of 3rd stage with Syntocinon infusion ........... □.
  Iron infusion may be required, rarely a blood transfusion ............................... □.

Signed……………………… Designation…………………… Date………………………………

*First pregnancy, age>40 yrs, last preg >10 yrs ago, BMI>35, prev or family history PET
NB Twin pregnancy is not an indication for GTT
Schedule of Appointments and Scans for multiple Pregnancies

<table>
<thead>
<tr>
<th>Weeks</th>
<th>Dichorionic (DCDA) Twins</th>
<th>Monochorionic (MCDA) Twins</th>
</tr>
</thead>
<tbody>
<tr>
<td>12-14</td>
<td>Scan and Obstetric clinic appointment</td>
<td>Scan and Obstetric clinic appointment</td>
</tr>
<tr>
<td>16</td>
<td>CMW appointment</td>
<td>FM scan and CMW appointment</td>
</tr>
<tr>
<td>18</td>
<td>FM scan and antenatal check</td>
<td>FM scan and antenatal check</td>
</tr>
<tr>
<td>20</td>
<td>Scan and CMW appointment (FBC)</td>
<td>FM scan by fetal medicine consultant and antenatal check (FBC)</td>
</tr>
<tr>
<td>22</td>
<td></td>
<td>FM scan and antenatal check</td>
</tr>
<tr>
<td>24</td>
<td>Scan and CMW appointment</td>
<td>FM scan and CMW appointment</td>
</tr>
<tr>
<td>26</td>
<td>FM scan and antenatal check</td>
<td>FM scan and antenatal check</td>
</tr>
<tr>
<td>28</td>
<td>Scan and CMW appointment</td>
<td>FM scan and CMW appointment</td>
</tr>
<tr>
<td>30</td>
<td>FM scan and antenatal check</td>
<td>FM scan and antenatal check</td>
</tr>
<tr>
<td>32</td>
<td>Scan and CMW appointment</td>
<td>FM scan and CMW appointment</td>
</tr>
<tr>
<td>34</td>
<td>Obstetric clinic appointment (34-36 weeks)</td>
<td>FM scan and Obstetric clinic appointment</td>
</tr>
<tr>
<td>36</td>
<td>Scan and CMW appointment</td>
<td>FM scan and CMW appointment</td>
</tr>
</tbody>
</table>

Plans for Delivery- (to be completed by 36 weeks)

Decision re mode of delivery................................................................................................................

If LSCS – date booked..........................Gestation..........................Steroids Y/N date....................... 

Plan if admitted in labour prior to this date................................................................................................

If vaginal delivery

Induction of Labour – date booked..........................Gestation..........................

Induction plan – ARM / Propess / Other................................................................. 

Stretch and sweep to be done by CMW prior to IOL (delete if not appropriate)

gestation at which S&S should be offered by CMW...........................................

Signed.............................................................Designation....................................................Date....................

Please do not hesitate to ask about anything – your midwife or doctor will be happy to discuss anything that is not clear
Women’s and Children’s Division  
Maternity Services  
Twin Vaginal Delivery Proforma

Analgesia:
- Epidural: YES ☐ Effective throughout Y / N Reason:...
- Other analgesia: ...

2nd stage:
- Obstetrician present throughout: YES ☐ Name:
  ...

Reasons:...

If Obstetrician attended later, at what point...

- Resuscitaires prepared …..Y / N If no why...
- Neonatologist/ANNP present at delivery…Y / N If no why...
- Mode of delivery of leading twin...
- Indication for operative delivery...
- Complete CS or instrumental delivery proforma (if applicable)

Following delivery of leading twin:
- Lie confirmed. Y / N – USS / manually Lie...
- V.E: presenting part...
- ARM once p.p in pelvis Y / N If N reason for early ARM...
- Time syntocinon started...
- Indication for operative delivery...
- Complete CS or instrumental delivery proforma (if applicable)

Following delivery of second twin:
- Syntocinon 40 IU in 500mls NaCl over 4hrs given -Y/N –if no why not...
- Cord gases –1st Twin A- pH.........BE........V-pH.......BE ........
  - 2nd Twin A- pH.........BE........V-pH.......BE ........

EBL...

Complete perineal repair proforma (if applicable)

Complete Thromboprophylaxis proforma

Signed: Designation: Date: ...

MULTIPLE PREGNANCY - CLINICAL GUIDELINE
Any other information or additional procedures:

Signed…………………………………………..Designation…………………………………Date…………….