Dear colleague,

Please find attached the draft Implementation Advice resource which has been developed to support the NICE clinical guideline “multiple pregnancy” (CG129). The resource has been developed to focus upon specific recommendations within the guideline, which relate to establishing specialist networks and local teams for the care of women with a multiple pregnancy. It is not intended to cover implementation of the guideline as a whole.

We would be very grateful to receive any comments that you have on the document as a whole, and in particular on the content, whether it would be useful in practice, whether there are any errors or omissions, or if there is any further information that you feel we should include that is currently absent. If there are any other resources that you feel that we should link to in the relevant sections of the resource, please also highlight these.

Following consultation, all of the consultation comments that have been collected will be used to refine the resource. It is scheduled for publication November 23rd 2011, but this is subject to change.

If you have any links or suggestions of how we may publicise the launch of this resource, we would also be grateful to receive this information, as the resource will be published approximately two months after the launch of the guidance that it supports. Raising awareness of our support tools is an important aspect of making sure that they are available and of use to as many people as possible.

Please enter any comments that you have into the attached table and return this to denise.jarrett@nice.org.uk by 5pm on Wednesday 5th October 2011.
Best wishes and thank you in advance for taking part in this consultation.

Denise Jarrett
**Implementation Support Co-ordinator**
National Institute for Health and Clinical Excellence
Level 1A | City Tower | Piccadilly Plaza | Manchester M1 4BD | United Kingdom
Tel: 44 (0)161 870 3047 | Fax: 44 (0)845 003 7785
Multiple pregnancy: the management of twin and triplet pregnancies in the antenatal period

Implementation advice

Establishing specialist networks and local teams for the care of women with a multiple pregnancy

2011

NICE clinical guideline 129
This implementation advice accompanies the clinical guideline 'Multiple pregnancy the management of twin and triplet pregnancies in the antenatal period' (available online at: http://www.nice.org.uk/CG129).

Issue date: 2011

National Institute for Health and Clinical Excellence
MidCity Place
71 High Holborn
London WC1V 6NA

www.nice.org.uk

This implementation advice is aimed at the person responsible for supporting the implementation of NICE guidance in the organisation (NICE manager) and the clinical lead for the topic.

This is a support tool containing suggested steps towards implementing our guidance informed by your local baseline assessment. This resource is specifically designed to support the establishment of specialist networks and local teams for the care of women with a multiple pregnancy.

It is not NICE guidance.

Implementation of this guidance is the responsibility of local commissioners and/or providers. Commissioners and providers are reminded that it is their responsibility to implement the guidance, in their local context, in light of their duties to avoid unlawful discrimination and to have regard to promoting equality of opportunity. Nothing in this guidance should be interpreted in a way which would be inconsistent with compliance with those duties.

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Steps to implementing NICE clinical guidelines

The algorithm below outlines the process for implementing NICE clinical guidelines. When using this advice online, hold down the ‘Ctrl’ button and click on the hyperlinks in the boxes to go directly to the advice you need. The advice has been developed in consultation with a range of experts from patient and professional groups. A list of these contributors is available [here](#).

Why implement this guideline?

- Identify a [clinical] lead

Promote the guideline

Carry out a baseline assessment

Assess cost

Build an action plan

- National support for local action
- Sources of further information

Disseminate and implement plan

Review and monitor

Share learning
Why implement this guideline?

In 2008, 16 women per 1000 giving birth in England and Wales had multiple births compared with 10 per 1000 in 1980. The incidence of triplet pregnancies is rare, with less than 200 women giving birth to triplets in England and Wales each year.

The rising multiple birth rate is due mainly to increasing use of assisted reproduction techniques, including in vitro fertilisation (IVF). Up to 24% of successful IVF procedures result in multiple pregnancies.

Multiple pregnancy is associated with higher risks for the mother and babies than singleton pregnancies. Risks to the babies depend partly on the chorionicity and amnionicity of the pregnancy. Early diagnosis of multiple pregnancy and appropriate support and referral is necessary to provide optimum care. Because of the increased risk of complications, women with multiple pregnancies need more monitoring and increased contact with healthcare professionals during their pregnancy than women with single pregnancies.

NICE recommends that networks agree care pathways for the management of twin or triplet pregnancies, to provide women with care and support that is appropriate for the chorionicity of the pregnancy. Care for women with twin or triplet pregnancies should be provided by a multidisciplinary team of specialists, responsible for core pregnancy care, and an enhanced team for referrals. Members of the core and the enhanced teams should have experience and knowledge relevant to twin and triplet pregnancies.

The relevant recommendations and associated definitions are shown on the next page.

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Relevant recommendations

**Chorionicity**

1.1.2.11 Networks should agree care pathways for managing all twin and triplet pregnancies to ensure that each woman has a care plan in place that is appropriate for the chorionicity of her pregnancy.

**Specialist care**

1.2.4.1 Clinical care for women with twin and triplet pregnancies should be provided by a nominated multidisciplinary team consisting of:

- a core team of named specialist obstetricians, specialist midwives and ultrasonographers, all of whom have experience and knowledge of managing twin and triplet pregnancies
- an enhanced team for referrals, which should include:
  - a perinatal mental health professional
  - a women’s health physiotherapist
  - an infant feeding specialist
  - a dietitian.

Members of the enhanced team should have experience and knowledge relevant to twin and triplet pregnancies.

1.2.4.2 Referrals to the enhanced team should not be made routinely for women with twin and triplet pregnancies but should be based on each woman’s needs.

1.2.4.3 Coordinate clinical care for women with twin and triplet pregnancies to:

- minimise the number of hospital visits
- provide care as close to the woman’s home as possible
- provide continuity of care within and between hospitals and the community.
1.2.4.4 The core team should offer information and emotional support specific to twin and triplet pregnancies at their first contact with the woman and provide ongoing opportunities for further discussion and advice including:

• antenatal and postnatal mental health and wellbeing
• antenatal nutrition (see 1.2.3.1)
• the risks, symptoms and signs of preterm labour and the potential need for corticosteroids for fetal lung maturation
• likely timing and possible modes of delivery
• breastfeeding
• parenting.
Who should be involved?

This resource has been developed to support the establishment of specialist networks and local teams for the care of women with a multiple pregnancy.

In terms of developing a specialist network, it might be possible to identify an existing maternity network or group within the region or local health community. This may be a formal partnership or planning group, or an informal network. Where local effective structures exist, it may be advantageous to make use of these as a basis for the development of an implementation team and for action planning. Where such a network does not exist, a lead clinician (or clinicians) from each unit that will be involved in the network should be identified. An overall lead or chair may be identified for organisational purposes, but the network may function more effectively if members are treated on an equal level.

In terms of establishing the core team recommended in the guideline, this should consist of specialist obstetricians, midwives and ultrasonographers with knowledge and experience of management of multiple pregnancy. The most appropriate members of the core team will be practitioners with experience and enthusiasm, who will champion the guideline and inspire others to implement the recommendations. The core team may wish to work as a group to develop plans for the implementation of the guideline (forming an "implementation group"). In units where a core team does not already exist, part of the implementation plan for the guideline will involve the formulation of this team, so one individual lead may be the starting point for the development of this specialist team.

As the guideline recommends the development of an enhanced team for referral, representatives from the specialisms stated may also be involved in the "implementation group". The enhanced team members include a perinatal
mental health professional, a women's health physiotherapist, an infant feeding specialist and a dietitian.

In addition to professional and clinical membership, service users should be represented within the "implementation group". If there is a local maternity service liaison committee in place, this could be utilised for this purpose.

Promote the guideline

It is important that the implementation group disseminate the guideline with other practitioners involved in the care of women with a multiple pregnancy, or that may encounter women with a multiple pregnancy during the antenatal period. Whilst the core specialist and enhanced teams will be responsible for the majority of antenatal care, making other practitioners aware of the guideline and its recommendations will ensure that women are referred appropriately to the core specialist team for their care.

Dissemination of the NICE guideline might involve making presentations or running workshops. The slide set provided by NICE should help you raise awareness.

The recommendations from this guideline as a whole have been incorporated into a Multiple Pregnancy NICE pathway [Add hyperlink]. NICE pathways are an online tool which provides quick and easy access, topic by topic, to the range of guidance from NICE, including quality standards, technology appraisals, clinical and public health guidance and NICE implementation tools. The NICE pathway may also be useful in promoting the use of the guideline in practice.
**Carry out a baseline assessment**

Using the published guideline, the implementation group should compare current practice with the recommendations. This may involve assessing the multiple pregnancy rate within the local unit, maternal and fetal outcomes for multiple pregnancies within the unit, referrals made to tertiary units for care (particular those which may be unnecessary if the guideline is implemented) and associated clinical complications in pregnancy and childbirth that may influence the care that is needed, or which professional groups need to be involved in implementation.

As the network or core specialist team will be responsible for providing care and information for women with a multiple pregnancy, in line with the recommendations within the guideline as a whole, they should consider the impact on:

- patients
- staffing
- equipment and training
- configuration of services

The NICE audit criteria may help you with this process. Alternatively, there may already be data collection processes in place in your hospital or region that you can use to undertake a baseline assessment.

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Assess cost

The implementation group may benefit from referring to the costing template provided by NICE to help them to assess the potential costs and/or savings associated with developing specialist networks or local core teams. The costings report and template consider all of the recommendations that have costs or savings implications, and it may be useful to be aware of these when planning implementation of care pathways, and sharing with midwifery and obstetric staff.

It might be possible to make some of the required changes using existing resources, and there may be potential for savings to be achieved, or capacity freed up to be used for other aspects of care.

If a specialist multidisciplinary team can be established using current resources then it is unlikely that there will be significant cost implications. Because there are relatively few multiple pregnancies each year, staff at some hospitals may have little experience of multiple pregnancies. Therefore training may be required, which could have some resource implications.

An increase in the number of women receiving specialist care for multiple pregnancies may reduce the number of preterm births and neonatal complications, resulting in potential savings. The amount saved will need to be assessed at a local level.

Click here to view NICE’s costing report. [Add hyperlink to ‘costing report’]

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Build an action plan

The details of your action plan will depend on the results of your baseline assessment and your local circumstances.

The suggested actions below do not constitute NICE guidance. They are based on the learning of a range of experts who have experience of implementing networks and establishing core specialist teams. In consultation with them we identified four key areas to address:

- Build a robust system for data collection and benchmarking
- Establish appropriate local service organisation and provision
- Develop knowledge, skills and experience of the multi-disciplinary team
- Develop local pathways and guidelines

Suggested actions for implementation

Build a robust system for data collection and benchmarking

Collecting data on existing cases and outcomes will help organisations to identify where changes may need to be made in service planning and provision.

Where networks are established, benchmarking may help to improve services and care provision, and set standards across the network.

- Identify a responsible person/persons for data collection and collation
- Identify data that is already collected that could be used to monitor outcomes and trends
- Utilise the audit tools developed by NICE to identify how local practice compares to the recommendations within the guideline
- Develop a system for feedback of data within the organisation, and within the wider network where this is established
- Develop a system for benchmarking and setting standards across the network, where available.
Service organisation and provision

Rates of multiple pregnancies will vary nationally, and some units, particularly tertiary units, and those providing IVF treatment, will be more likely to have higher rates of multiple pregnancy. Service design and provision should be tailored to the local needs of the population. The service planning process should take into account the findings of local data collection and needs assessment.

For example, in a small obstetric unit, where the incidence of multiple pregnancy is low, creating full time specialist roles in multiple pregnancy for the core team would not be a beneficial use of resource. However, it is important to develop services that utilise existing resource whilst still maintaining a high standard of specialist care. Having identified leads, even within a smaller maternity unit, may lead to improved care, as women will then have a named point of contact to give continuity of care and consistent evidence-based advice and support. In a larger unit, with a higher rate of multiple pregnancies, a weekly multiples clinic, with a core team of specialists, may be a practical option.

Having lead practitioners with enthusiasm and a particular interest in multiple pregnancy may be beneficial in ensuring successful implementation.

In some areas there may be limitations on the service that can be provided by the enhanced team, due to shortage of resources or staffing levels. There may be external resources and services available to whom women may be referred or signposted in order that they receive the full range of care recommended. For example, the Twins and Multiple Birth Association (TAMBA) provide a network of parenting sessions for the parents who have had a multiple birth (see table).

- Use local birth rate and needs assessment to determine appropriate use of resources and level of service needed

Either
• Identify practitioners with knowledge, skills and experience of caring for women with multiple pregnancy
or
• Identify practitioners with enthusiasm for, and an interest in, caring for women with multiple pregnancy

• Assess training needs of staff and how these can be met (see related action point below)
• Disseminate information regarding the specialist team to other practitioners who may be involved in the care of women with a multiple pregnancy
• Identify external resources for signposting and referral where necessary

**Develop skills of the multidisciplinary team**

Although members of the core and enhanced team may have received some information with regards to multiple pregnancy during their professional training, they may lack the specialised knowledge and skills to provide advice and support on all aspects of twin and triplet pregnancy.

Particularly in units where the rates of multiple pregnancy are lower, practitioners may not come into contact with women carrying twins or triplets on a regular basis, and hence may lack the practical skills to support them in a specialist capacity.

Having a named obstetrician, midwife and ultrasonographer, with knowledge and skills in caring for women with a multiple pregnancy will formalise the role, and ensure that there is at least one practitioner from each of these professions who has extended knowledge and skills in this area. Once established in this role, the practitioner will gain further experience of applying their knowledge and skills in the care of women referred to them. In the services that helped to develop this implementation advice resource, knowledge has been developed through practical application and experience.

Similarly, the skills of the enhanced team may be developed through accessing training where it is available, or through practical experience.
In a local or regional network, it may be possible for practitioners to 'shadow' a colleague with existing skills and experience for professional development purposes.

- Carry out a training needs assessment
- Identify training resources to improve knowledge and skills of members of core and enhanced team
- Consider liaising with other units within the network or health community to share opportunities for the building of practical experience
- Consider the training needs of the wider workforce within the unit, and how the core team may be able to disseminate knowledge and skills

**Develop local pathways and guidelines**

Local pathways and guidelines should be established to ensure that each woman has a care plan in place that is appropriate for the chorionicity of her pregnancy.

Developing local guidelines, and sharing them within the network or organisation will enable practitioners to provide care in line with the NICE guideline and to give women consistent advice and information about that care that they can expect to receive.

Local pathways and guidelines will also enable staff who are not members of the core to team to recognise acceptable parameters and be aware of when referrals should take place. This will also improve the overall care and experience for women.

- Identify a responsible person/persons to develop the local pathways and guidelines
- Check any existing pathways and guidelines for consistency with the NICE guideline and any related guidance (see table)
• Use NICE guidance to inform the development of up-to-date best practice guidelines and associated care pathway\(^1\).

• Disseminate local pathways and guidelines within the network or organisation both within the core and enhanced team and also to other practitioners who may be involved in the care of women with a multiple pregnancy

• Consider developing the pathway into a resource for pregnant women, or providing them with a schedule of the relevant care pathway for their category of multiple pregnancy

\(^1\) In particular, the [web-based version](#) of the guidance and the NICE pathway for multiple pregnancy may be useful in developing local guidelines. NICE have produced a [chart](#) plotting recommended antenatal appointments and other elements of care which could be included into local care pathways.
### National support for local action* [Back to build an action plan]

<table>
<thead>
<tr>
<th>Document</th>
<th>Relevance</th>
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</thead>
<tbody>
<tr>
<td><strong>National Service Framework for Children Young People and Maternity Services</strong>&lt;br&gt;Standard 11: Maternity Services Department of Health (2007)</td>
<td>• Section 4 of the NSF relates to the creation of care pathways and managed maternity and neonatal care networks.</td>
</tr>
<tr>
<td><strong>Supporting Families in the Foundation Years</strong>&lt;br&gt;Department of Education (2011)</td>
<td>• Maps the government’s vision for the foundation years and sets the framework for future collaboration and co-production for practitioners working in this field.</td>
</tr>
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### Sources of further information* [Back to build an action plan]

<table>
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<tr>
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<tbody>
<tr>
<td><strong>Parenting with multiples in mind workshop</strong>&lt;br&gt;Twins and Multiple Birth Association (TAMBA)</td>
<td>• This link will direct you to further information on the range of parenting classes held by TAMBA to support parents of multiple birth children.</td>
</tr>
<tr>
<td><strong>Liverpool Women's Hospital Specialist Fetal Clinics</strong>&lt;br&gt;Liverpool Women's NHS Foundation Trust</td>
<td>• This is the website of one of the services that was consulted in the development of this resource. It may be useful to give further background to the way in which services could be developed and provided.</td>
</tr>
<tr>
<td><strong>Website of the Maternity Service Liaison Committees</strong>&lt;br&gt;Hosted by ChiMat</td>
<td>• Including service user input in the development of networks, as documented in the guideline and in this resource, may be facilitated by discussion with local maternity service liaison committee (MSLC). This website gives guidance and support for the development and maintenance of local MSLCs.</td>
</tr>
<tr>
<td><strong>Fetal Anomaly Screening Programme</strong></td>
<td>• This site provides information on the standards for fetal anomaly screening to ensure quality for all pregnant women, including specific recommendations for screening in multiple pregnancy.</td>
</tr>
<tr>
<td><strong>Families in the Foundation Years</strong></td>
<td>• A new web-based resource with separate entry portals for professionals and parents. Links together resources and documents from across the sector, and references the 2011 Department of Education policy document.</td>
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</table>

*Please note that the Institute is not responsible for the quality or accuracy of any information or advice provided by any other organisation.*
## Related NICE guidance [Back to build an action plan]

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>NICE clinical guideline CG129 <em>Multiple Pregnancy</em> (2011)</td>
<td>• The recommendations as a whole detail the care and support that women with a multiple pregnancy should receive antenatally</td>
</tr>
<tr>
<td>NICE clinical guideline CGXX Caesarean Section (update)</td>
<td>• This guideline contains recommendations regarding mode of delivery for multiple pregnancy</td>
</tr>
<tr>
<td>NICE clinical guideline CG110 <em>Pregnancy with Complex Social Factors</em> (2010)</td>
<td>• This guideline refers to additional input that women with complex social needs may require, over and above the routine antenatal care specified in CG62. Women who have a multiple pregnancy may require specialist input to address social needs that are not related to the number of fetuses that she is carrying. Women should receive care appropriate to her multiple pregnancy, but other issues should not be overlooked (for example domestic abuse, substance misuse)</td>
</tr>
<tr>
<td>NICE clinical guideline CG62 <em>Antenatal Care</em> (2008)</td>
<td>• This guideline presents the routine antenatal care that women should expect to receive. The multiple pregnancy guideline is presented as additional or different care that women with multiple pregnancy should expect.</td>
</tr>
<tr>
<td>NICE clinical guideline CG45 <em>Antenatal and Postnatal Mental Health</em> (2007)</td>
<td>• This guideline contains recommendations related to the care and treatment of women with mental health problems during pregnancy and in the postnatal period. It contains recommendations on recognising mental health problems, which should be incorporated into antenatal care pathways for all women, including those with a multiple pregnancy.</td>
</tr>
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**Disseminate and implement plan**

For the recommendations covered in this document, it is important to ensure sign up from the obstetric and midwifery teams, along with ultrasonographers involved in the care of women with multiple pregnancy. It is also important to have support and commitment from professionals from the enhanced team, and from other members of staff who will come into contact with, and may provide care for, this group of women. This may include community midwives and delivery suite and other hospital-based midwifery and obstetric specialists. As stated, disseminating the action plan, along with any care pathways, local policies and guidelines may be a useful step in sharing information and engaging other staff members.

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Review and monitor

Implementation of the guideline should be reviewed and monitored. Regular meetings of the network or the local specialist and enhanced team should be scheduled to give an opportunity for feedback on progress or barriers to implementation.

It may be possible to use network meetings to benchmark care between different organisations involved, and use audit data to discuss how standards and care could be improved.

Within an organisation, regular team meetings may be used to share learning gained through practice, discussing cases, and whether care has been provided in line with NICE guidance and local care pathways.

One way to monitor implementation of the guideline is to audit current practice against the NICE guidance. The guideline is accompanied by audit criteria to help you with this.

Implementation and uptake of NICE guidance

The ERNIE (Evaluation and review of NICE implementation evidence) database is a source of information on the implementation and uptake of NICE guidance.

ERNIE will provide:

- a bank of guidance-specific NICE implementation uptake reports
- references to external literature
- a simple classification system summarising the uptake of NICE guidance.

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Share learning

Whilst developing this resource, NICE liaised with two key organisations who are implementing specialist services for women with multiple pregnancy. This implementation advice resource is based upon the experiences of these two examples, but we would welcome any other examples from practice through submission to the Institute's 'shared learning' database.

Northern Survey of Twins and Multiple Pregnancy (NorSTAMP)

NorSTAMP is a regional network based in the North East and North Cumbria region. Clinicians from the region began their collaboration three years ago, by collecting data and auditing outcomes with a multiple pregnancy register. NorSTAMP were supported in their network by the regional maternity service office. This network enabled clinicians to work together to compare outcomes across the region and formulate guidelines to promote best practice and improve standards of care for women with multiple pregnancy.

The collaboration includes consultant obstetricians and midwives from the eleven maternity units in the region, along with some representation from ultrasonography colleagues. Network meetings take place regularly, with past key speakers including the Multiple Birth Foundation.

NorSTAMP have created an information package for women with a multiple pregnancy that details the care that they can expect to receive, along with additional information and support.
Liverpool Women's NHS Foundation Trust Multiple Pregnancy Clinic

The multiple pregnancy clinic at Liverpool Women's Hospital was set up in 1998, and has since grown from being staffed by one obstetrician and one midwife to its present format of a team of specialists working together to provide a 52 week-a-year service.

As a hospital with its own fertility unit, and as a tertiary centre receiving referrals from across the North West, and Wales, the number of multiple pregnancies seen in the unit is greater than average multiple birth rates.

The multiple pregnancy team consists of three specialist midwives, two specialist obstetric consultants and one specialist ultrasonographer, who are supported by a wider team to provide care and support for women with a multiple pregnancy. The team provides parent education targeted at parents expecting twins or triplets, and encourage mothers who have experience of multiple birth to share this with expectant parents. The team also have links with the Twins and Multiple Births Association (TAMBA), and recommend their parenting classes, information resources and specialist support to parents-to-be, as part of an information pack specially designed by the Liverpool team.

The obstetric and midwifery care pathway followed within the unit was developed jointly by the team, led by the specialist obstetrician, with specific pathways documented for women with different types of multiple pregnancy. These pathways are not only shared with the other staff within the hospital, but a copy of the relevant pathway is provided to each woman that attends the clinic, to ensure that she is aware of the care and support that she can expect to receive at each stage of pregnancy.
Acknowledgements

NICE would like to thank everyone who has contributed to the development of this implementation advice:

- Dr. Stephen Sturgiss, Newcastle Upon Tyne NHS Foundation Trust
- Dr. Leanne Bricker, Liverpool Women's NHS Foundation Trust
- Dr. Lorna Wood, Liverpool Women's NHS Foundation Trust

Thank you also to members of the National Collaborating Centre for Women and Child Health and the Guideline Development Group (see guideline).

Thank you to the following members of the NICE Implementation External Reference Group, and the people who were consulted through telephone interviews and meetings:

- [Individual and organisation name]
- [Individual and organisation name]