NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

Health and social care directorate

Quality standards and indicators

Briefing paper

Quality standard topic: Induction of labour

Output: Prioritised quality improvement areas for development.

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Contents

1	Introduction	2
	Overview	
3	Summary of suggestions	5
4	Suggested improvement areas	6
Арр	pendix 1: Care pathway	18
Арр	pendix 2: Key priorities for implementation (CG70)	19
Арр	pendix 3: Suggestions from stakeholder engagement exercise	22

1 Introduction

This briefing paper presents a structured overview of potential quality improvement areas for induction of labour. It provides the Committee with a basis for discussing and prioritising quality improvement areas for development into draft quality statements and measures for public consultation.

1.1 Structure

This briefing paper includes a brief description of the topic, a summary of each of the suggested quality improvement areas and supporting information.

If relevant, recommendations selected from the key development source below are included to help the Committee in considering potential statements and measures.

1.2 Development source

The key development source referenced in this briefing paper is:

Induction of labour. NICE clinical guideline 70 (2008).

2 Overview

2.1 Focus of quality standard

This quality standard will cover the induction of labour in a hospital maternity unit. The quality standard will not cover the induction of labour for women with diabetes or women with multifetal pregnancy; it will not cover augmentation (rather than induction) of labour.

2.2 Definition

Labour is induced when it is believed that the outcome of the pregnancy will be better if it is artificially interrupted rather than being left to follow its natural course. Contractions can be started artificially by inserting a tablet, gel or controlled release pessary into the vagina. In certain cases a caesarean section may be offered. Prior to formal induction of labour, membrane sweeping may be used to increase the chances of spontaneous labour, reducing the need for induction.

A variety of clinical circumstances may indicate the need for induction of labour, with a greater or lesser degree of urgency, but the essential judgment that the clinician and the pregnant woman must make is whether the interests of the mother or the baby, or both, will be better served by ending or continuing the pregnancy. In making that judgment, it is necessary to factor in the wishes of the woman in response to her understanding of the actual risk of continuing the pregnancy, as well as the possible consequences of the method employed and the response to induction of labour.

Circumstances in which induction of labour will generally be offered include pregnancies progressing beyond 40 weeks, some cases of premature rupture of membranes (waters breaking early), certain maternal health conditions or where there are indications that the fetus is not thriving.

2.3 Incidence and prevalence

Induction of labour is a relatively common procedure. Approximately one in every five (122,000) deliveries in the UK are induced each year.

For labours induced using pharmacological methods (including gel, pessary and tablet insertion, whether or not surgical induction was also attempted), less than two thirds of women gave birth without further intervention, with about 15% having instrumental births and 22% having emergency caesarean sections.

2.4 Management

Induction of labour has an impact on birth experience and the health of women and their babies and so needs to be clearly clinically justified. It may be less efficient and is usually more painful than spontaneous labour. Epidural analgesia and assisted delivery are more likely to be required following induced labour.

There is a higher risk of stillbirth or fetal compromise for some pregnancies continuing beyond 42 weeks, although not every pregnancy over 42 weeks is affected this way. Currently there is no way of knowing which babies might be at risk, so induction is offered to all women who don't go into labour spontaneously by 42 weeks.

Traditionally, induction of labour is carried out during the daytime when labour wards are often already busy. It can place more strain on labour wards than spontaneous labour.

See appendix 1 for the associated care pathway from NICE clinical guideline 70.

2.5 National Outcome Frameworks

Tables 1-2 show the outcomes, overarching indicators and improvement areas from the frameworks that the quality standard could contribute to achieving.

Domain	Overarching indicators and improvement areas	
1 Preventing people from	Reducing deaths in babies and young children	
dying prematurely	1.6i Infant mortality*	
	1.6ii Neonatal mortality and stillbirths	
4 Ensuring that people have	Overarching indicator	
a positive experience of care	4c Friends and family test (placeholder)	
	Improvement area	
	Improving women and their families' experience of maternity services	
	4.5 Women's experience of maternity services	
5 Treating and caring for people in a safe environment and protecting them from avoidable harm	Improving the safety of maternity services 5.5 Admission of full-term babies to neonatal care	
Alignment across the health and social care system		
* Indicator shared with Public Health Outcomes Framework (PHOF)		

Table 1 NHS Outcomes Framework 2013/14

Table 2 Public health outcomes framework for England, 2013–2016

Domain	Objectives and indicators	
4 Healthcare public health and	Objective	
preventing premature mortality	Reduced numbers of people living with preventable ill	
	health and people dying prematurely, while reducing the	
	gap between communities	
	Indicators	
	4.1 Infant mortality*	
	4.3 Mortality from causes considered preventable**	
Alignment across the health and social care system		
* Indicator shared with NHS Outcomes Framework		
** Indicator complementary with NHS Outcomes Framework		

3 Summary of suggestions

3.1 Responses

In total 9 stakeholders responded to the 2-week engagement exercise (7-21 August 2013), including 3 stakeholders who responded but did not suggest any areas for quality improvement.

Stakeholders were asked to suggest up to 5 areas for quality improvement. Specialist committee members were also invited to provide suggestions. The responses have been merged and summarised in table 3 for further consideration by the Committee.

Full details on the suggestions provided are given in appendix 3 for information.

Suggested area for improvement	Stakeholders
 Setting Safety and audit of outpatient induction procedures Increase in the use of outpatient induction of labour Labour in a setting of the woman's choice following induction 	NHSE, SCM
Women's involvement in decisions about induction of labour	AIMS, NCT, SCM
Timing of induction of labour	AIMS, NHSE, RCPCH, SCM
Fetal growth restriction	SCM
Pain relief	AAGBI ,SCM
Continuous support	NCT
 Administration of PGE2 Reducing the need for oxytocin augmentation following induction of labour using PGE2 Reducing the need for vaginal examinations during induction of labour with PGE2 	FP
Stakeholders	
AAGBI, Association of Anaesthetists of Great Britain & Irelan AIMS, Association for Improvements in the Maternity Service FP, Ferring Pharmaceuticals Ltd	
NCT, National Childbirth Trust	
NHSE, NHS England	
RCPCH, Royal College of Paediatrics and Child Health SCM, Specialist Committee Member	

4 Suggested improvement areas

4.1 Setting

4.1.1 Summary of suggestions

Safety and audit of outpatient induction procedures

Stakeholders commented that induction of labour should be carried out safely, with support procedures in place and continuously audited. Anecdotal evidence suggests outpatient inductions are being offered as cost-cutting measures. Stakeholders recommend a standardised approach and continuous national safety audit is required to facilitate informed choice for women and clinicians.

Increase in the use of outpatient induction of labour

Stakeholders suggested that there is increasing evidence for the safety of outpatient inductions of labour since the NICE guidance was produced.

Labour in a setting of the woman's choice following induction

Stakeholders suggested that "low risk" induction of labour should be offered in an appropriate birth centre setting. This is to allow patient choice and a normal birth experience for women whose pregnancies have progressed beyond 40 weeks without obstetric complications following induction of labour. Stakeholders commented that choice of birth setting can be taken away when induction of labour becomes necessary and women are transferred to the conventional labour ward. It is suggested that this can lead to obstetric interventions and increased risk of an operative birth.

4.1.2 Selected recommendations from development source

Table 4 below highlights recommendations that have been provisionally selected from the development source that may support potential statement development. These are presented in full after table 4 to help inform the Committee's discussion.

Suggested quality improvement area	Suggested source guidance recommendations		
Safety and audit of outpatient induction procedures.	NICE CG70 Recommendations 1.5.1.1 and 1.5.1.2		
Increase in the use of outpatient induction of labour.	Not covered in NICE CG70 and no recommendations are presented		
Labour in a setting of the woman's choice following induction	Not covered in NICE CG70 and no recommendations are presented		

Table 4 Specific areas for quality improvement

Safety and audit of outpatient induction procedures

NICE CG70 – Recommendation 1.5.1.1

In the outpatient setting, induction of labour should only be carried out if safety and support procedures are in place.

NICE CG70 – Recommendation 1.5.1.2

The practice of induction of labour in an outpatient setting should be audited continuously.

Increase in the use of outpatient induction of labour

Not covered in NICE CG70 and no recommendations are presented.

Labour in a setting of the woman's choice following induction

Not covered in NICE CG70 and no recommendations are presented.

4.1.3 Current UK practice

Safety and audit of outpatient induction procedures

No published studies on current practice were highlighted for this suggested area for quality improvement; this area is based on stakeholders' knowledge and experience.

Increase in the use of outpatient induction of labour

No published studies on current practice were highlighted for this suggested area for quality improvement; this area is based on stakeholders' knowledge and experience.

Labour in a setting of the woman's choice following induction

The Department of Health policy document 'Maternity Matters' (2007)¹ set out national choice guarantees for women, one of which relates to place of birth. Depending on their circumstances, women and their partners should be able to choose between three different options, including:

- a home birth
- birth in a local facility, including a hospital, under the care of a midwife
- birth in a hospital supported by a local maternity care team including midwives, anaesthetists and consultant obstetricians.

The Maternity services survey 2010² showed that between 2007 and 2010, there was a significant increase in the proportion of respondents who had a choice about where to have their baby at the outset of pregnancy. However, this did not capture data on whether women actually gave birth in a setting of their choice. 71% of women felt they were involved enough in decisions about their care.

¹ Department of Health (2007) <u>Maternity matters: choice, access and continuity of care in a safe</u> service

² <u>Care Quality Commission, Maternity services survey 2010</u>

4.2 Women's involvement in decisions about induction of labour

4.2.1 Summary of suggestions

Stakeholders commented that women should receive information about the benefits and risks of induction of labour to enable them to make an informed choice. Decisions about induction of labour should be woman-centred. Induction of labour can impact on the birth experience and lead to an increased risk of interventions in labour (e.g. electronic fetal monitoring, epidural anaesthesia, operative delivery). Stakeholders highlighted feedback from women about limited or no involvement in decisions.

Stakeholders also highlighted feedback from women who felt that they were not sufficiently involved in determining their length of pregnancy or the parameters of a 'normal' pregnancy length for themselves. Stakeholders commented that there is natural variation in the length of pregnancies which may not currently be accounted for, for example they may know that pregnancies in their family last 43 weeks.

4.2.2 Selected recommendations from development source

Table 5 below highlights recommendations that have been provisionally selected from the development source that may support potential statement development. These are presented in full after table 5 to help inform the Committee's discussion.

Suggested quality improvement area	Selected source guidance recommendations	
Women's involvement in decisions	NICE CG70 Recommendations 1.1.1.7 (KPI), 1.1.1.2 (KPI) and 1.1.1.3.	
bout induction of labour	NICE CG70 Recommendations 1.2.1.2 (KPI) and 1.2.1.3.	

Table 5 Specific areas for quality improvement

NICE CG70 Recommendation 1.1.1.1 (key priority for implementation)

Women should be informed that most women will go into labour spontaneously by 42 weeks. At the 38 week antenatal visit, all women should be offered information about the risks associated with pregnancies that last longer than 42 weeks, and their options. The information should cover:

• membrane sweeping:

- that membrane sweeping makes spontaneous labour more likely, and so reduces the need for formal induction of labour to prevent prolonged pregnancy
- what a membrane sweep is
- o that discomfort and vaginal bleeding are possible from the procedure
- induction of labour between 41 and 42 weeks
- expectant management.

NICE CG70 Recommendation 1.1.1.2 (key priority for implementation)

Healthcare professionals should explain the following points to women being offered induction of labour:

- the reasons for induction being offered
- when, where and how induction could be carried out
- the arrangements for support and pain relief (recognising that women are likely to find induced labour more painful than spontaneous labour) (see also 1.6.2.1 and 1.6.2.2)
- the alternative options if the woman chooses not to have induction of labour
- the risks and benefits of induction of labour in specific circumstances and the proposed induction methods
- that induction may not be successful and what the woman's options would be.

NICE CG70 Recommendation 1.1.1.3

Healthcare professionals offering induction of labour should:

- allow the woman time to discuss the information with her partner before coming to a decision
- encourage the woman to look at a variety of sources of information
- invite the woman to ask questions, and encourage her to think about her options
- support the woman in whatever decision she makes.

NICE CG70 Recommendation 1.2.1.2 (key priority for implementation)

Women with uncomplicated pregnancies should usually be offered induction of labour between 41 and 42 weeks to avoid the risks of prolonged pregnancy. The exact timing should take into account the woman's preferences and local circumstances.

NICE CG70 Recommendation 1.2.1.3

If a woman chooses not to have induction of labour, her decision should be respected. Healthcare professionals should discuss the woman's care with her from then on.

4.2.3 Current UK practice

In the Maternity services survey 2010³, 71% of participants said they were always involved in decisions about their care, 23% of participants said they were sometimes involved in their care and 6% did not think they were involved in their care.

³ <u>Care Quality Commission, Maternity services survey 2010</u>

4.3 Timing of induction of labour

4.3.1 Summary of suggestions

Stakeholders commented that prolonged pregnancy beyond 42 weeks is associated with an increased risk of neonatal complications and stillbirth. It was suggested that there is current variation in practice between maternity units. Stakeholders also highlighted new evidence that supports the offer of induction to certain groups (e.g. older mothers) at an earlier time point.

Stakeholders suggested that there is evidence of neonatal harm from induction of labour at gestations before 39 weeks, including increased incidence of respiratory distress syndrome and neonatal unit admission; it was therefore suggested that a reduction in the number of non-medically indicated inductions occurring before 39 completed weeks of gestation was needed.

4.3.2 Selected recommendations from development source

Table 6 below highlights recommendations that have been provisionally selected from the development source that may support potential statement development. These are presented in full after table 6 to help inform the Committee's discussion.

Suggested quality improvement area	Selected source guidance recommendations
Timing of induction of labour	NICE CG70 Recommendations 1.2.1.1 and 1.2.1.2 (KPI)

Table 6 Specific areas for quality improvement

NICE CG70 Recommendation 1.2.1.1

Women with uncomplicated pregnancies should be given every opportunity to go into spontaneous labour.

NICE CG70 Recommendation 1.2.1.2 (key priority for implementation)

Women with uncomplicated pregnancies should usually be offered induction of labour between 41 and 42 weeks to avoid the risks of prolonged pregnancy. The exact timing should take into account the woman's preferences and local circumstances.

4.3.3 Current UK practice

No published studies on current practice were highlighted for this suggested area for quality improvement; this area is based on stakeholders' knowledge and experience.

4.4 Fetal growth restriction

4.4.1 Summary of suggestions

Stakeholders suggested that induction of labour should be avoided if there is severe fetal growth restriction because in such cases the fetus may be unable to cope with the stress of labour, leading to unnecessary fetal distress and poor outcomes.

4.4.2 Selected recommendations from development source

Table 7 below highlights recommendations that have been provisionally selected from the development source that may support potential statement development. These are presented in full after table 7 to help inform the Committee's discussion.

Suggested quality improvement area	Selected source guidance recommendations	
Fetal growth restriction	NICE CG70 Recommendation 1.2.7.1 (KPI)	

Table 7 Specific areas for quality improvement

NICE CG70 Recommendation 1.2.7.1 (key priority for implementation)

If there is severe fetal growth restriction with confirmed fetal compromise, induction of labour is not recommended.

4.4.3 Current UK practice

No published studies on current practice were highlighted for this suggested area for quality improvement; this area is based on stakeholders' knowledge and experience.

4.5 Pain relief

4.5.1 Summary of suggestions

Stakeholders commented that induced labour may be more painful than spontaneous labour, and therefore the need for analgesia is greater following induction of labour. It was suggested that good quality pain relief has been shown to be an important determinant of patient satisfaction with maternity care.

4.5.2 Selected recommendations from development source

Table 8 below highlights recommendations that have been provisionally selected from the development source that may support potential statement development. These are presented in full after table 8 to help inform the Committee's discussion.

Suggested quality improvement area	Selected source guidance recommendations	
Pain relief	NICE CG70 Recommendations 1.6.2.1, 1.6.2.2, 1.6.2.3, 1.6.2.4 and 1.6.2.5	

Table 8 Specific areas for quality improvement

NICE CG70 Recommendation 1.6.2.1

Women being offered induction of labour should be informed that induced labour is likely to be more painful than spontaneous labour.

NICE CG70 Recommendation 1.6.2.2

Women should be informed of the availability of pain relief options in different settings (see $1.1.1.2^4$ and $1.5.1.1^5$).

- that membrane sweeping makes spontaneous labour more likely, and so reduces the need for formal induction of labour to prevent prolonged pregnancy
- \circ what a membrane sweep is
- \circ $\;$ that discomfort and vaginal bleeding are possible from the procedure
- induction of labour between 41 and 42 weeks
- expectant management.

⁴ NICE CG70 Recommendation 1.1.1.2: Women should be informed that most women will go into labour spontaneously by 42 weeks. At the 38 week antenatal visit, all women should be offered information about the risks associated with pregnancies that last longer than 42 weeks, and their options. The information should cover:

[•] membrane sweeping:

⁵ NICE CG70 Recommendation 1.5.1.1: In the outpatient setting, induction of labour should only be carried out if safety and support procedures are in place.

NICE CG70 Recommendation 1.6.2.3

During induction of labour, healthcare professionals should provide women with the pain relief appropriate for them and their pain (as described in 'Intrapartum care' [NICE clinical guideline 55]). This can range from simple analgesics to epidural analgesia.

NICE CG70 Recommendation 1.6.2.4

Birth attendants (carers and healthcare professionals) should offer women support and analgesia as required, and should encourage women to use their own coping strategies for pain relief.

NICE CG70 Recommendation 1.6.2.5

The opportunity to labour in water is recommended for pain relief.

4.5.3 Current UK practice

'Maternity Matters' (2007)⁶ highlighted the Government's commitment to ensure all women have choice in where and how they give birth and what pain relief to use, depending on their individual circumstances as a national choice guarantee.

In the Maternity services survey 2010⁷, 8% of participants said they did not receive the pain relief they wanted and 26% said they did to some extent.

⁶ Department of Health (2007) <u>Maternity matters: choice, access and continuity of care in a safe</u> service

⁷ <u>Care Quality Commission, Maternity services survey 2010</u>

4.6 Continuous support

4.6.1 Summary of suggestions

Stakeholders commented that there should be continuous support for women during labour and birth from a companion of their choice. It was suggested that induction of labour is routinely carried out on the labour ward where there may be little opportunity for privacy, and where birth partners are generally only permitted to stay during the day and evening visiting hours.

4.6.2 Selected recommendations from development source

Table 9 below highlights recommendations that have been provisionally selected from the development source that may support potential statement development. These are presented in full after table 9 to help inform the Committee's discussion.

Suggested quality improvement area	Selected source guidance recommendations
Continuous support	Not covered in NICE CG70 and no recommendations are presented

Table 9	Specific areas	for qualit	v im	provement
	opcomo arcas	ioi quunt	y	provenienc

4.6.3 Current UK practice

In the Maternity services survey 2010⁸, 84% of women responded that their partner or companion were welcomed to attend the birth by staff of the maternity unit.

⁸ Care Quality Commission, Maternity services survey 2010

4.7 Administration of PGE2

4.7.1 Summary of suggestions

Reducing the need for oxytocin augmentation following induction of labour using PGE2

Stakeholders referred to evidence that the method of administration of PGE2 may affect the need for oxytocin augmentation and that the relative risk of requiring augmentation following induction with PGE2 gel is reduced compared with using tablets. Stakeholders referred to evidence that oxytocin augmentation is reduced with the use of PGE2 controlled release pessary compared with PGE2 gel. Stakeholders suggest that individual obstetric units differ in the method of administration of PGE2 for induction of labour, impacting on the need and costs of oxytocin augmentation.

Reducing the need for vaginal examinations during induction of labour with PGE2

Stakeholders highlighted that for a vaginal tablet or gel, if labour does not start within 6-8 hours of the first dose with tablet, or within 6 hours with gel a vaginal examination needs to be undertaken before a second dose is given. If labour still does not start after 2 doses of the tablet or get, a third vaginal examination is carried out. With the controlled release pessary, a second vaginal examination is necessary if labour does not start within 24 hours of insertion. The method of administration of PGE2 therefore has an impact on the number of vaginal examinations, with more frequent examinations needed when a tablet or gel is used compared with a pessary and therefore has resource implications. It was suggested that the second and subsequent doses of PGE2 tablet, if required, may be delayed because of staff shortages or high labour ward activity making the 6 hour assessment of the patient difficult to achieve. This could potentially lead to long induction times, inductions not being actively managed and an unsatisfactory experience for patients.

4.7.2 Selected recommendations from development source

Table 10 below highlights recommendations that have been provisionally selected from the development source that may support potential statement development. These are presented in full after table 10 to help inform the Committee's discussion.

Suggested quality improvement area	Selected source guidance recommendations
Reducing the need for oxytocin	Not covered in NICE CG70 and there
augmentation following induction of labour using PGE2.	are no recommendations stating preference for one form of

 Table 10 Specific areas for quality improvement

	administration over another
Reducing the need for vaginal examinations during induction of labour with PGE2.	Not covered in NICE CG70 and no recommendations are presented (links to recommendation 1.3.2.1)

NICE CG70 Recommendation 1.3.2.1 (key priority for implementation)

Vaginal PGE2 is the preferred method of induction of labour, unless there are specific clinical reasons for not using it (in particular the risk of uterine hyperstimulation). It should be administered as a gel, tablet or controlled-release pessary. Costs may vary over time, and trusts/units should take this into consideration when prescribing PGE2. For doses, refer to the SPCs. The recommended regimens are:

- one cycle of vaginal PGE2 tablets or gel: one dose, followed by a second dose after 6 hours if labour is not established (up to a maximum of two doses)
- one cycle of vaginal PGE2 controlled-release pessary: one dose over 24 hours.

4.7.3 Current UK practice

No published studies on current practice were highlighted for this suggested area for quality improvement; this area is based on stakeholders' knowledge and experience.



Appendix 2: Key priorities for implementation (CG70)

Recommendations that are key priorities for implementation in the source guideline and that have been referred to in the main body of this report are highlighted in grey.

Information and decision-making

- Women should be informed that most women will go into labour spontaneously by 42 weeks. At the 38 week antenatal visit, all women should be offered information about the risks associated with pregnancies that last longer than 42 weeks, and their options. The information should cover:
 - membrane sweeping:
 - that membrane sweeping makes spontaneous labour more likely, and so reduces the need for formal induction of labour to prevent prolonged pregnancy
 - what a membrane sweep is
 - that discomfort and vaginal bleeding are possible from the procedure
 - induction of labour between 41+0 and 42+0 weeks
 - o expectant management.
- Healthcare professionals should explain the following points to women being offered induction of labour:
 - the reasons for induction being offered
 - \circ when, where and how induction could be carried out
 - the arrangements for support and pain relief (recognising that women are likely to find induced labour more painful than spontaneous labour) (see also 1.6.2.1 and 1.6.2.2)
 - the alternative options if the woman chooses not to have induction of labour
 - the risks and benefits of induction of labour in specific circumstances and the proposed induction methods
 - that induction may not be successful and what the woman's options would be.

Induction of labour to prevent prolonged pregnancy

 Women with uncomplicated pregnancies should usually be offered induction of labour between 41+0 and 42+0 weeks to avoid the risks of prolonged pregnancy. The exact timing should take into account the woman's preferences and local circumstances.

Preterm prelabour rupture of membranes

- If a woman has preterm prelabour rupture of membranes after 34 weeks, the maternity team should discuss the following factors with her before a decision is made about whether to induce labour, using vaginal prostaglandin E2 (PGE2)[1]:
 - risks to the woman (for example, sepsis, possible need for caesarean section)
 - o risks to the baby (for example, sepsis, problems relating to preterm birth)
 - o local availability of neonatal intensive care facilities.

Vaginal PGE 2

- Vaginal PGE2 is the preferred method of induction of labour, unless there are specific clinical reasons for not using it (in particular the risk of uterine hyperstimulation). It should be administered as a gel, tablet or controlled-release pessary. Costs may vary over time, and trusts/units should take this into consideration when prescribing PGE2. For doses, refer to the SPCs. The recommended regimens are:
 - one cycle of vaginal PGE2 tablets or gel: one dose, followed by a second dose after 6 hours if labour is not established (up to a maximum of two doses)
 - one cycle of vaginal PGE2 controlled-release pessary: one dose over 24 hours.

Failed induction

- If induction fails, healthcare professionals should discuss this with the woman and provide support. The woman's condition and the pregnancy in general should be fully reassessed, and fetal wellbeing should be assessed using electronic fetal monitoring.
- If induction fails, the subsequent management options include:
 - a further attempt to induce labour (the timing should depend on the clinical situation and the woman's wishes)
 - caesarean section (refer to 'Caesarean section' [NICE clinical guideline 13]).

ID	Stakeholder	Suggested key area for quality improvement	Why is this important?	Why is this a key area for quality improvement?	Supporting information
1	SCM1	Key area for quality improvement 1	NICE recommends that in an outpatient setting: – induction should be carried out with safety and support procedures in place – And continuously audited.	Anecdotal evidence suggests that outpatient induction are being offered as cost-cutting measures – a standardised approach and continuous national safety audit is required to facilitate informed choice for women and clinicians.	
2	SCM2	Key area for quality improvement 1 Understanding the optimum timing for post dates induction of labour	To prevent perinatal mortality. It is well known that after 42 completed weeks of pregnancy the risk of stillbirth increases. For this reason the NICE guideline (NICE 2008) recommended that induction for post dates be organised to start between 41 and 42 weeks gestation.	Since the publication of the NICE guideline for Induction of Labour in 2008 further evidence has emerged suggesting the need to offer induction to certain groups (e.g. older mothers) at an earlier time point. It is important to ensure that practice nationally remains standardised.	Stock S, Ferguson E, Duffy A, Ford I, Chalmers J, Norman J 2012 Outcomes of elective induction of labour compared with expectant management: a population based study <i>British Medical Journal</i> 344 e2838
					RCOG paper 2013 Scientific Impact paper no 34 available at <u>http://www.rcog.org.uk/fil</u> <u>es/rcog-</u> <u>corp/1.2.13%20SIP34%2</u> <u>OIOL.pdf</u>
2	SCM2	Key area for quality improvement 2	To allow patient choice and a normal birth experience for women without obstetric	Normal birth remains on the government's agenda for the maternity services. Many women have planned to give birth in a	Department of Health 2007 <i>Maternity Matters:</i> <i>Choice, access and</i>

Appendix 3: Suggestions from stakeholder engagement exercise

ested key area W Jality Ovement	Why is this important?	Why is this a key area for quality improvement?	Supporting information
taking "low risk" co ion of labour in in	complications following nduction of labour for bostdates.	homelike birth setting i.e. an alongside birth centre. At present in many settings this option is taken away when induction of labour becomes necessary and women are transferred to the conventional labour ward. This can lead to obstetric interventions and increased risk of an operative birth. This is despite the NICE induction of labour guideline (2008) which recommends labour and birth in water following successful induction of labour and a normal CTG.	continuity of care in a safe service The Stationary Office, Norwich National Institute of Health and Clinical Excellence 2007 Intrapartum care management and delivery of care to women in labour National Collaborating Centre for Women's and Children's Health, London National Institute for Health and Clinical Excellence 2008 Induction of Labour National Collaborating Centre for Women's and
vement 3 pe	perceptions of risk. If individual	Induction of labour can lead to increased risk of interventions in labour (e.g	Children's Health, London Cheyne H, Abhyankar P, Williams B 2013 Elective induction of labour:The
	ment 3		ment 3 perceptions of risk. If individual risk of interventions in labour (e.g

ID	Stakeholder	Suggested key area for quality improvement	Why is this important?	Why is this a key area for quality improvement?	Supporting information
		The need to ensure women drive the decision making process when induction of labour for post dates is indicated.	a more dominant role in the decision making process this may lead to fewer women being routinely induced.	anaesthesia, operative delivery). The possibility of fewer women accepting the offer of induction of labour for postdates may reduce intervention rates and increase the normal birth rate. At the same time women will feel more empowered in their role in the birth process ahead of becoming new parents.	problem of interpretation and communication of risks <i>Midwifery</i> In press
3	SCM3	Information sharing about options for induction of labour - IOL at 41-42 weeks - IOL following prelabour ROM > 34 weeks - Failed IOL	Care should be woman-centred; this includes good communication	Women should be able to make informed decisions about their care	IOL guideline
3	SCM3	Induction offered between 41-42 weeks	Prolonged pregnancy beyond 42 weeks is associated with increased risk of stillbirth	Prevention of prolonged pregnancy	IOL guideline
3	SCM3	Avoid induction if there is severe fetal growth restriction with confirmed compromise	Growth restricted fetus may be unable to cope with stress of labour	Prevent unnecessary fetal distress and possible poor outcomes	IOL guideline
3	SCM3	Provision of adequate pain relief	Induced labour may be more painful than spontaneous	Prevention of pain	IOL guideline Intrapartum care guideline
4	Royal College of	Key area for quality	The neonatal complications	To avoid variable practices.	NICE CG 70

ID	Stakeholder	Suggested key area for quality improvement	Why is this important?	Why is this a key area for quality improvement?	Supporting information
	Paediatrics and Child Health	improvement 1 Preventing prolonged pregnancy Induction of labour should be offered between 41+0 and 42+0 weeks	relating to post maturity increase significantly after 42+0.		
5	National Childbirth Trust	Key area for quality improvement 1 – Information for women on the natural variation in length of pregnancy and the opportunity to discuss this with a health professional.	Information for women on the options for induction of labour and consequent experience of birth is recommended within NICE guidance.	We receive verbal feedback from many women after they have given birth. It appears from this that a significant number are informed that they are being booked in for induction based purely on assessed length of pregnancy, and little or no information or discussion takes place on the pros and cons of this course of action.	http://humrep.oxfordjourn als.org/content/early/201 3/08/06/humrep.det297.a bstract
5	National Childbirth Trust	Key area for quality improvement 2 – Availability of continuous support for women in the latent stage of labour following induction	The Cochrane review on continuous support in labour states: 'Hospitals should permit and encourage women to have a companion of their choice during labour and birth, and hospitals should implement programs to offer continuous support during labour.'	Induction of labour is routinely carried out on the labour ward, with women in 4 or 6- bedded bays. There is little opportunity for privacy, and birth partners are generally only permitted to stay during the day and evening visiting hours. The Cochrane review also proposes that continuous support may primarily affect the physiology of normal birth as a trained companion is likely to encourage a woman to stay mobile, adopt different positions and use gravity to ease the pain and assist the baby in descending, and reassurance can reduce the stress hormone	http://www.nct.org.uk/site s/default/files/related_do cuments/Caffrey%20Ho w%20important%20is%2 Ocontinuous%20support %20for%20women%20in %20labour%EF%80%A5 %20An%20overview%20 of%20evidence%20p18- 20%20Sept%2011.pdf http://www.ncbi.nlm.nih.g ov/pubmed/23857334

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				epinephrine, which is associated with adverse labour effects. Women may not be considered to be in established labour whilst on the antenatal ward, but many still find it difficult to cope with even relatively weak contractions when they are on their own.	
6	Association for Improvements in the Maternity Services (AIMS)	Key area for quality improvement 1	Induction to prevent baby being "overdue"	Frequent complaints on our national helpline from women who are told ultrasound results give irrefutable evidence, when they know to the hour when the pregnancy began, or they know that in their family normal pregnancies last 43 weeks, etc Jukic's research shows much greater variation in human gestation than current limited concepts of "normality"	A. N. Jukic et al (2013 Length of human pregnancy and contributors to its natural variation. Human Reproduction (http://humrep.oxfordjour nals.org/content/early/20 13/08/06/humrep.det297. full This shows variation of 37 days in length of human gestation.
6	Association for Improvements in the Maternity Services (AIMS)	Key area for quality improvement 2	Emphasis on quality of consent and information, especially in talking about risk.	Although NICE guidelines do say women should "have the opportunity to make informed decisions about their care" we have protested against, and continue to deplore, its weakening in recent years with the addendum "in partnership with healthcare professionals". It is the woman, and the woman alone, who has the legal and moral right to consent. Our calls and emails are overloaded with women telling us they were simply told	Induction can lead to increased risk of emergency caesarean section which, quite apart from the physical risks to mother and child, also carries an increased risk to the mother of post-traumatic stress reactions and PTS, first identified by Ryding (1)

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				that they HAD to be induced, because the baby was at risk– unquantified and unexplained. Scare tactics are often used, sometimes backed up by reports to social services for those who demur or refuse, - despite DoH guidelines on consent especially paras 1, 10, 12 and 44. Alas we know that in practice professionals do not follow these, and therefore they need to be emphasised if guidelines are to be followed. Consent issues in childbirth are connected with serious and long term psychiatric morbidity, which again needs to be mentioned.	Lack of consent, or the feeling that interventions could or should have been avoided are also involved in causation of PTSD., e.g. Menage(2) (1) E. Ryding (1997) Post traumatic stress reactions after emergency caesarean section. Act Obstet. Scand. Gynecol 76 856- 61 (2) Janet Menage (1993) Post- traumatic stress disorder in women who have undergone obstetric and/or gynaecological procedures: a consecutive series of 30 cases of PTSD. Journ Reproductive and Infant Psychology 11 (4) 221-228

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7	Ferring Pharmaceutical s Ltd	Key area for quality improvement 1 Reducing the need for oxytocin augmentation following induction of labour using PGE ₂	There is evidence that the method of administration of PGE ₂ may affect the need for oxytocin augmentation. The relative risk of requiring augmentation following induction with PGE ₂ gel is reduced compared with using tablets. There is also evidence that oxytocin augmentation is reduced with the use of PGE ₂ controlled release pessary compared with PGE ₂ gel.	Individual obstetric units differ in the method of administration of PGE ₂ for induction of labour, impacting on the need and costs of oxytocin augmentation.	Kelly AJ, Kavanagh J, Thomas J. Vaginal prostaglandin (PGE2 and PGF2a) for induction of labour at term. <i>Cochrane</i> <i>Database of Systematic</i> <i>Reviews</i> 2003;(4):CD003101.
7	Ferring Pharmaceutical s Ltd	Key area for quality improvement 2 Reducing the need for vaginal examinations during induction of labour with PGE ₂	For the vaginal tablet or gel, if labour does not start within 6 -8 hours of the first dose with tablet, or within 6 hours with gel, a vaginal examination needs to be undertaken before a second dose is given. If labour still does not start after 2 doses of the tablet or gel, a third vaginal examination is carried out. With the controlled release pessary, a second vaginal examination is necessary if labour does not start within 24 hours of insertion.	The method of administration of PGE ₂ may impact on the number of vaginal examinations that are required, with concomitant resource implications. In clinical practise, the second and subsequent doses of PGE ₂ tablet, if required, may be delayed because of staff shortages or high labour ward activity making the 6 hour assessment of the patient difficult to achieve. Inductions may therefore not be actively managed and this can lead to long induction times, which in turn may lead to bed blocking, The induction process becomes time consuming for midwives and patients and may also result in women and/or carers complaining about an unsatisfactory hospital experience.	 Induction of labour. NICE clinical guideline 70 (2008). Kalkat RK, McMillan E, Cooper H, Palmer K. Comparison of Dinoprostone slow release pessary (Propess) with gel (Prostin) for induction of labour at term - a randomised trial. Journal of Obstetrics and Gynaecology 2008;28(7):,695-699 El-Shawarby SA, Connell RJ. Induction of labour at term with

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					vaginal prostaglandins preparations: A randomised controlled trial of Prostin vs Propess. Joumal of Obstetrics and Gynaecology October 2006; 26(7): 627 – 630
8	Association of Anaesthetists of Great Britain & Ireland	Key area for quality improvement 1 Pain relief for induction of labour and induced labour	There is good evidence that the need for analgesia is greater in induced labour and strategies are required to improve comfort of procedures such as artificial rupture of membranes	Good quality pain relief has been shown to be an important determinant of patient satisfaction with maternity care	Yudkin BJOG 1979 Sewart BMJ 1977 Cammu AJOG 2002 Wong NEJM 2005 {no effect of early neuraxial blockade
9	NHS England	Key area for quality improvement 1	Reduction in the number of non medically indicated inductions occurring before 39 completed weeks of gestation	Evidence of neonatal harm from induction of labour at gestations <39 weeks gestation- increased incidence of RDS and neonatal unit admission	
9	NHS England	Key area for quality improvement 2	Reduction in variation in the rate of induction between maternity units	Evidence of significant variation from RCOG intrapartum indicators project published May 2013	http://www.rcog.org.uk/o ur-profession/research- and-audit/clinical- indicators-project
9	NHS England	Key area for quality improvement 3	Increase in the use of outpatient induction of labour when clinically appropriate	Increasing evidence for the safety of outpatient IOL since previous NICE guidance	Cochrane review http://onlinelibrary.wiley.c om/doi/10.1002/1465185 8.CD007701.pub2/abstra ct;jsessionid=65FE090A

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					256CB985C2D910A3D8 EB1B0C.d04t03
9	NHS England	Key area for quality improvement 4	Use of induction of labour to reduce the stillbirth and perinatal death rate	High stillbirth rate in the UK compared to other high income countries with no significant reduction over 20 years Multi factorial causes but there is evidence that IOL can reduce perinatal death rate- Stock, BMJ May 2010 Need more robust guidance as to appropriate use of IOL in preventing perinatal mortality	Stillbirth risk Gardosi et al BMJ Jan 2013 http://www.bmj.com/cont ent/346/bmj.f108 Outcomes of IOL Stock, Norman et al BMJ paper May 2010 http://www.bmj.com/cont ent/344/bmj.e2838
10	The Royal College of Midwives		The Royal College of Midwives considers that the key development sources are included in this topic overview, and looks forward to commenting on the draft of the quality standard.		
11	The Royal College of Obstetricians and Gynaecologists	We will not be commenting in this phase but will comment on the draft document			
12	Royal College of Nursing		This is just to let you know that there are no comments to submit on behalf of the Royal College of Nursing in relation to the induction of Labour quality standard stakeholder engagement exercise		