

Module 1

Team working

Key learning points

- Good team working is important, because poorly functioning teams are associated with preventable harm.
- More efficient teams state the emergency earlier and use closed-loop communication.
- Teamwork training may improve clinical outcomes when incorporated into clinical training.
- Effective teams appreciate the different roles and responsibilities of team members and the importance of shared decision making. They are also able 'stand back and take a broader view' in an emergency situation.
- Multi-professional training locally for all staff has been associated with improved teamwork, improved safety attitudes and, most importantly, improved perinatal outcomes.
- Recent national reports recommend that teams that work together should also train together.

Problems identified with local training

- Not training all groups and grades of staff together
- Not incorporating teamwork training into clinical training
- Staff working in 'silos' and not understanding the value of shared decision making

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Introduction

Poor teamwork is directly associated with preventable morbidity and mortality for mothers and babies, with communication, ownership, leadership and teamwork all being identified as problematic areas in the 2009–12 MBRRACE-UK report.¹ There have been repeated recommendations for more and better teamwork training in these national reports,^{1,2,3} and in recent years a groundswell of endorsements for 'human factors training'.⁴ However, there are a number of studies that have demonstrated that isolated teamwork, clinical resource management (CRM) training, and/or human factors training do not appear to be associated with improvements in clinical^{5,6} or process⁷ outcomes. Therefore, teamwork training and human factors training should not, by themselves, be regarded as panaceas for all current ills.

Nevertheless, some teamwork training, including elements of human factors training, does appear to be clinically effective.⁸ It is therefore important to understand the differences between team training interventions that were associated with improvements in outcome and those that were not. Moreover, it is also important to understand the barriers that prevent teams from working together effectively, so that useful interventions and solutions can be identified.

Teamwork training

Team working, including obstetric teamwork training, is complex and more than merely a summation of knowledge or skill.⁹ In one study of simulated eclampsia, the more efficient teams were likely to have stated (recognised and verbally declared) the emergency earlier (e.g. 'this is eclampsia' and used closed-loop communication (with each task clearly delegated, accepted and executed, and completion acknowledged)).¹⁰

Integrating and teaching these simple team behaviours within simulated emergency drills appears to be clinically effective.^{8,11} This has been reiterated in a US study, which reported a statistically significant and persistent improvement in perinatal morbidity in a hospital which was exposed to a programme combining team training and clinical drills, whereas another study identified no improvements in a hospital exposed to team training alone, nor in the control.¹²

Improving team working is important, and the current evidence base supports local, multi-professional training for all staff annually, with teamwork training integrated within the clinical training.¹³

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Definition

Teamwork is the combined effective action of a group working towards a common goal. It requires individuals with different roles to communicate effectively and work together in a coordinated manner to achieve a successful outcome.

Local training

As previously mentioned, current evidence supports training for obstetric emergencies in multi-professional teams, locally within the hospital unit.¹⁴

The key features of training programmes associated with improvements in perinatal outcomes are:^{13,15}

- Training is conducted in-house.
- 100% of maternity staff are trained regularly.
- All maternity staff are trained together, incorporating teamwork principles into clinical training scenarios.
- System changes are introduced, often suggested by staff participating in the training.
- Financial incentives for the provision of local training.

In-house training appears to be the most efficient, and cost-effective, means of training all staff in an institution. In-house training can also address specific local issues and can be used as a driver for system changes.^{16,17}

Local training may also carry additional benefits, by creating a means through which an organisation can identify inherent risks that occur as a result of clinical unpredictability, and harnessing expertise capable of providing solutions to them.¹⁸

Local simulation of unpredictable intrapartum emergencies acts as a source of organisational stability and organisational adaptation, i.e. standardising practice wherever possible, while simultaneously retaining sufficient flexibility for clinical teams to be able to adapt to different clinical presentations.

High reliability and resilience

An independent researcher identified three core processes that are supported by PROMPT and that underpin high reliability and resilience: relational rehearsal, systems structuring, and practice elaboration.¹⁹

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- **Relational rehearsal** represents the social processes that are involved in building shared expectations, establishing patterns of collective working and maintaining trust amongst the many diverse professionals who must rapidly come together to respond to an obstetric emergency.
- **Systems structuring** concerns the processes that are involved in testing and improving the organisational systems that support rapid and adaptive responses to emergency situations.
- **Practice elaboration** is when clinical practices are examined, refined, improved and embedded, to allow timely and effective responses to a wide variety of emergencies.

Costs of effective local training

Local training in clinical units is also likely to be cheaper, as well as more effective, than training in simulation centres.²⁰ However, local training is not without cost. Although there are expenses associated with training materials, training models and venues, the main costs of local training are release of staff to provide both the trainers and the staff to be trained. Few programmes have been costed formally, but one UK training programme associated with improvements in outcomes required more than 400 multi-professional (midwife, anaesthetist, obstetrician and healthcare assistant) staff days to train all staff in a large UK maternity department, at an estimated cost of £120,000 per year.^{21,22}

Effective training is not cheap. Furthermore, the costs of training are usually borne locally by the obstetric department, whereas the benefits of improved intrapartum outcomes are felt in areas of the health system outside of maternity care. Therefore, a whole-system approach is required to incentivise effective training using existing financial levers.

However, a word of caution: unannounced simulation in local clinical settings has also been proposed, with suggested advantages of decreasing required resources and increasing realism, as well as widening multi-professional team participation.^{2,23,24,25,26,27,28} However, these benefits appear to be based on comparing training in simulation centres with local, multi-professional training models, rather than with any 'ad hoc' local training schedules. Moreover, when unannounced simulation has been evaluated in an obstetric setting, a significant minority of staff considered it to be stressful and unpleasant, with midwives expressing these feelings more frequently. Furthermore, the planning and implementation of unannounced simulations was deemed time-consuming and challenging.^{29,30,31}

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The recent NHS England National Maternity Review, *Better Births*, recognises the benefits of local multi-professional training, recommending that ‘those who work together should train together’.³² Furthermore, multi-professional training should be a standard part of continuous professional development, both in routine situations and in emergencies.

Communication

Communication is the transfer of information and the sharing of meaning. Often, the purpose of communication is to clarify or acknowledge the receipt of the information. Communication is often impaired under stress. It is important to learn effective techniques that increase awareness and help overcome these limitations.

In the 2009–12 MBRRACE-UK report, communication problems were identified that directly affected care of women with haemorrhage. These included a lack of communication of concerns regarding the amount of blood loss and not escalating concerns to a senior member of staff when there was a deterioration in the woman’s condition. MBRRACE-UK recommends that there should be a named senior doctor allocated to take charge of ongoing care in these circumstances.¹

The five requirements for effective communication and efficient team performance are:^{33,34}

1. FORMULATED

Give a clear message. It should be succinct and not rambling. SBAR (situation, background, assessment, recommendation/response) is a useful acronym for formulating messages and handing over information and has been found to be used almost naturally by the most effective obstetric teams.⁹ For example:

‘Mary Norton is having an antepartum haemorrhage (S). She is nulliparous and is 30 weeks pregnant (B). She is in severe pain, is hypotensive and tachycardic, and her observations score three red triggers on the MOEWS chart (A). I would like a senior obstetrician and senior midwife to review her immediately (R).’

Figure 1.1 is an example of a maternal SBAR form that can be used when handing over information. MBRRACE-UK recommends that the use of this structured communication tool may be helpful and effective in situations that require prompt decision making and action, such as when there is major haemorrhage or shoulder dystocia.¹

SBAR obstetric handover sheet for an urgent clinical situation

S	Situation I am calling about (woman's name): _____ Ward: _____ Hosp No: _____ The problem I am calling about is: _____ I have just made an assessment: Her vital signs are: Respirations _____ Blood pressure ____/____ Pulse _____ SPO ₂ _____% Temperature _____°C	
	I am concerned about: <div><input type="checkbox"/> Respirations because they are: <div><input type="checkbox"/> less than 10 <input type="checkbox"/> over 30 <input type="checkbox"/> The woman is having oxygen at _____ l/min</div></div> <div><input type="checkbox"/> Blood pressure because it is: <div><input type="checkbox"/> systolic over 160 <input type="checkbox"/> diastolic over 100 <input type="checkbox"/> systolic less than 90</div></div> <div><input type="checkbox"/> Pulse because it is: <div><input type="checkbox"/> over 120 <input type="checkbox"/> less than 40</div></div>	<div><input type="checkbox"/> Urine output because it is: <div><input type="checkbox"/> less than 100mls over the last 4 hours <input type="checkbox"/> significantly proteinuric (+++)</div></div> <div><input type="checkbox"/> Haemorrhage: <div><input type="checkbox"/> Antepartum <input type="checkbox"/> Postpartum</div></div> <div><input type="checkbox"/> Fetal wellbeing: <div><input type="checkbox"/> Fetal bradycardia <input type="checkbox"/> Pathological CTG</div></div> <div><input type="checkbox"/> FBS Result: pH _____ Time sample taken: _____ hrs</div>
	Obstetric Early Warning Chart Score: <div><div></div><div></div></div>	
B	Background (tick relevant sections) The woman is: <div><input type="checkbox"/> Nulliparous <input type="checkbox"/> Multiparous <input type="checkbox"/> Grand multiparous <input type="checkbox"/> Gestation: _____ wks <input type="checkbox"/> Singleton <input type="checkbox"/> Multiple <input type="checkbox"/> Previous Caesarean section or uterine surgery</div> <input type="checkbox"/> Fetal wellbeing <div><input type="checkbox"/> Abdominal palpation: <input type="checkbox"/> Fundal height: _____ cms <input type="checkbox"/> Presentation: _____ Fifths palpable: _____ FH rate: _____ bpm <input type="checkbox"/> Intrapartum CTG: <input type="checkbox"/> Normal <input type="checkbox"/> Suspicious <input type="checkbox"/> Pathological</div> <input type="checkbox"/> Antenatal <div><input type="checkbox"/> A/N Risk sheet (details): _____ <input type="checkbox"/> Antenatal CTG: <input type="checkbox"/> Normal <input type="checkbox"/> Abnormal</div> <input type="checkbox"/> Labour <div><input type="checkbox"/> Spontaneous onset <input type="checkbox"/> Induced <input type="checkbox"/> IUGR <input type="checkbox"/> Pre eclampsia <input type="checkbox"/> Reduced Fetal movements <input type="checkbox"/> Diabetes <input type="checkbox"/> APH <input type="checkbox"/> Syntocinon infusion <input type="checkbox"/> Most recent vaginal examination: Time _____ hrs <input type="checkbox"/> Cervical dilatation: _____ cms <input type="checkbox"/> Station of presenting part: _____ <input type="checkbox"/> Position: _____ <input type="checkbox"/> Membranes ruptured <input type="checkbox"/> Meconium stained liquor <input type="checkbox"/> Fresh red loss PV <input type="checkbox"/> Third stage complete <input type="checkbox"/> Retained placenta</div> <input type="checkbox"/> Birth details/post birth <div><input type="checkbox"/> Date of Birth: _____ Time of Birth: _____ hrs <input type="checkbox"/> Type of birth: _____ <input type="checkbox"/> Perineal trauma: _____ <input type="checkbox"/> Blood loss: _____ mls <input type="checkbox"/> Syntocinon infusion <input type="checkbox"/> Fundus: <input type="checkbox"/> High <input type="checkbox"/> Atonic <input type="checkbox"/> Uterus tender <input type="checkbox"/> Abdominal/perineal wound bleeding</div>	

A	**Assessment** The problem seems to be: ☐ red flag sepsis ☐ cardiac ☐ respiratory ☐ haemorrhage ☐ severe PET ☐ HELLP ☐ pulmonary embolism ☐ pulmonary oedema ☐ severe fetal compromise ☐ I am not sure what the problem is, but the woman is deteriorating and we need to do something ☐ Treatment given / in progress: _____	
R	**Recommendation** Request: ☐ Please come to see the woman immediately ☐ I think delivering needs to be expedited ☐ I think the woman needs to be transferred to delivery suite ☐ I would like advice please Reported to: _____ Response: _____	

Person completing form (name): _____ Date: _____ Time: _____

Figure 1.1 Example of an SBAR handover sheet

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2. ADDRESSED TO SPECIFIC INDIVIDUALS (DELEGATED)

Use names of staff, and/or establish visual contact. Allocate appropriate tasks to an identified recipient.

‘Kate [midwife], please can you get the PPH emergency box.’

‘Kiren [maternity healthcare assistant], please could you document times and actions as they are called out, on this laminated pro forma. Thanks.’

3. DELIVERED

The problem should be stated clearly, concisely and calmly. When the obstetric emergency team arrives in your room, say:

‘This is a shoulder dystocia. Please could you call the emergency obstetric team and the neonatologist, immediately.’

Rather than:

‘Clemmie has been pushing for a long time, and the baby’s head has just delivered and it looks like it could be a very large baby and I think I might need some help.’

4. ACKNOWLEDGED

Adequate volume used and repeated back:

‘OK. You would like me to help Clemmie to get her legs into McRoberts’ position.’

5. ACTED UPON

Meaning acknowledged and action performed:

‘Clemmie is in McRoberts’ position at 13.21. Please, Mary [midwife], could you note the time on the laminated pro forma.’

In addition, the use of non-verbal communication, including making eye contact with individuals, helps to prevent ambiguity and promotes a shared knowledge of intention. Improper or imprecise terminology, inaudible communication, many team members talking at the same time and incomplete reports should all be avoided.

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Communication with the woman and her birth partner/relatives

Women and their partners/families also want the same information in an emergency as the rest of the team. In recounted experiences, companions often informed women of the situation and the aims of treatment because they had heard loud and clear messages from small yet effective teams.³⁵ When extra staff are available, it is a good idea to allocate a designated team member to communicate with the woman and her relatives. More important than *who* communicates with the woman and her birth partner is the *content* of the messages being delivered: the cause of the emergency, the condition of the baby, and the aims of immediate and ultimate treatment.³⁵

It would appear that using an SBAR-style structure during the emergency can be useful not only for teams but also for parents, and furthermore, it is likely to result in a patient perception of safety and good communication.³³

Leadership: roles and responsibilities

Good leadership is often recommended in reports, but it can be hard to define in practice. However, there is some recent work that has analysed the characteristics of good leaders in simulated and recounted actual emergencies. These studies demonstrate that leadership is best established by the person who has the most experience of the emergency.³⁵ Leadership may also be more effective when the leader knows all members of the multi-professional maternity team and their relevant roles, before the emergency happens (from previously working together or from handover). The leader should be mindful of the same three components of the situation as the rest of the team (team, situation, patient focus), establish the situation (SBAR), allocate critical tasks with closed-loop communication (directed–acknowledged–confirmed) and, if necessary, pass leadership to other team members more experienced in the specific emergency at hand.³⁵

Other members of the team should have their individual roles identified and agreed as early as possible. The leader should allocate critical tasks to the team members, including a designated person to talk to the woman and her partner/relatives.^{33,34} Team members should be mutually supportive, communicate clearly and give regular updates. They should also avoid becoming fixated on minutiae or running around aimlessly.^{35,36}

Key qualities of a good team member

- Good communicator
- Good understanding and acceptance of own limitations
- Awareness of environment and limitations of others
- Assertive
- Non-confrontational but willing to challenge if necessary
- Receptive to the suggestions of all other team members
- Thinks clearly

Situational awareness: ‘standing back and taking a broader view’

Situational awareness is how we notice, understand and think ahead in a fast-paced, constantly changing situation. It is that ‘gut instinct’ or ‘sixth sense’ that makes an expert midwife, obstetrician or anaesthetist. It involves recognising and understanding important cues, anticipating problems and sharing them with the team so that shared decision making and goals are achieved.

A lack of situational awareness was highlighted in the 2009–12 MBRRACE-UK report as the main human factor that contributed to some of the deaths from haemorrhage. The report identified delays in recognising the severity of the problem, and also staff persisting with ineffective or inappropriate care owing to a failure to continually re-evaluate the condition of the woman and her treatment.¹

Three levels of situational awareness have been suggested. These levels are as follows:

1. NOTICE

Be aware of the woman’s status, the team members’ status and all available resources. Anticipate potential errors by noticing cues and sharing decision making.
2. UNDERSTAND

Share information with the team, think what these cues and clues may mean, be aware of common pitfalls, re-evaluate/stand back and take

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a broader view at regular intervals, and seek to engage other team members in decisions.

3. THINK AHEAD

Anticipate, plan and prioritise. Situational awareness allows individuals to be 'ahead of the game'. Experienced clinicians usually have good situational awareness; they often pick up subtle cues, understand their significance and use them to anticipate and pre-empt problems.^{10,35}

Recognising cues for a loss of situational awareness

In extreme situations, people can sometimes enter 'fast time', whereby their capacity to reason is so severely impaired by the stress of the workload that they are no longer able to function interactively with the rest of the team. Characteristic signs of 'fast time' include:

- Poor communication
- Inability to plan ahead
- Tunnel vision
- Fixation on irrelevant issues (such as less than ideal equipment) or displacement activities such as unnecessary disputes with colleagues

'Fast time' at its worst can cause even good team players to completely 'freeze up'.

Maintaining/regaining situational awareness

One suggested way of maintaining situational awareness is to adopt the philosophy of the 'non-participant' leader: try not to become engaged in practical tasks that can be undertaken by others. This allows the leader to take a step back and maintain a broader view of the unfolding crisis. Team leaders sometimes have difficulty doing this in practice, because they often have the particular 'hands-on' skills required to deal with the problem.

To regain control of a situation, the following strategies can be tried by the team leader:^{10,33,35}

- Take the 'helicopter view': stand back to get the broader picture.
- Declare an emergency early: you will engage everyone's attention and boost the available human resources. Early declaration is associated with improved clinical team performance and efficiency, but also with improved patient perception of care.
- Communicate clearly and simply, starting with the critical tasks for each emergency.