

Top Ten

tips for
dealing with
emergencies
in the community

Sara Wickham, Liz Nightingale & Penny Champion

There is now an abundance of courses which midwives, doctors and others can attend in order to undertake the emergency 'skills and drills' training which is seen as so important in maternity care. However, because most women currently give birth in hospital, this is the most common setting for the scenarios used in such workshops, yet updating skills in emergency midwifery care is also vital for midwives who attend births at home, whether independently or through the health care system of their country. The context of an emergency situation in the home and other non-hospital settings (which range from well-equipped birth centres to less well-equipped supermarket car parks) is very different. It is not merely the range of equipment and furniture that varies; factors such as the temperature and the time of day or night, the layout of the setting and the relative lack of staff make an out-of-hospital emergency situation a manageable but very different challenge. As one midwife said upon her return from a multidisciplinary hospital-based course: *"I kept wanting to point out that the emphasis on using the bell to call for help was pointless for me; I could go and ring the woman's doorbell, but I'd be surprised if a senior midwife and the obstetric registrar turned up as a result!"*

One way in which this situation has been addressed in the UK is through workshops which focus on helping midwives deal with and practise skills and drills for emergencies in the community, which also inevitably involve discussion of how household objects and other items can be used to help. This Top Ten article emerged from one of those: an annual workshop facilitated by Penny Champion and Sara Wickham for Independent Midwives UK, although we have widened this to include tips and comments that we have received from other midwives too. The tips that follow need to be viewed in context: they may not all be transferable or ideal in institutional settings or where there are other options, but they can make a big difference within the context of a home birth.



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1 IV fluids

We received several tips on ways to 'hook up' bags of intravenous fluid in home settings, where drip poles are not commonly available:

I carry an S-shaped meat hook to suspend an IV fluids bag over a door or a piece of furniture.

I have a friend who carries plastic sticky-backed coat hooks in her PPH kit in case she needs to hang a bag of fluids and there isn't anywhere handy to hang it from.

Holding a bag of fluids aloft and steady can be a good way to keep a worried partner busy and feeling helpful.

Home-made splints

2

Also on the subject of IVs:

I use a rolled-up copy of a glossy magazine which is taped to the arm (behind the elbow) as a splint when I am trying to insert a cannula, for instance if the woman is having a post-partum haemorrhage. You can leave it taped on during transport to stabilise her arm as well.

3 Swim floats and hot towels

Three of the midwives who responded added to each others' thoughts in one area:

Use a swim float as a flat surface to secure an airway for neonatal resuscitation. This is light, cheap and easy to use, especially on a squishy bed surface. This facilitates resuscitation with the cord unclamped and uncut, offering the baby the possibility of support O₂ from the cord (more on this below).

With a swim float, I keep the warming electric blanket on it, turned on. This can then be used as a resuscitation station, and if it's necessary to have the baby flat for resuscitation, the float is warm and stays warm.

Warm the baby towels in a tumble dryer or wrap around one or two toasty warm hot water bottles. If still warm enough these can be used later to ease the mother's afterpains.

Inco pads

And more on baby warming:

Keep a cool baby warm in an inco pad and then wrap both in a dry towel – it keeps the heat in really well, especially useful in water births.*

* For non-UK readers, these are the plastic-backed pads placed under birthing women to protect floors and beds; also known as chux pads or blueys.

5 Stop watches

Not forgetting useful technology:

Carry a stop watch in your resuscitation kit – having one with large clear print makes it easier to read in low lighting. Start the stop watch (or delegate someone else to) at the moment of birth. If resuscitation is required, stop it once the baby is stable, pink and shouting. This can give you times to work backwards from for APGAR scores and for describing any resuscitation required as thoroughly as feasible in the circumstances. Many smart phones include a stopwatch option and a lit back screen, so less extra kit needed.

Index cards

We received several variations on the next tip:

Write out an index card with instructions on every different kind of emergency you might encounter (eg PPH, resuscitation, cord prolapse etc) with details of what to do, who to call and what to say. You can then have them laminated so they keep clean. That way, if you have your hands full and need the woman's partner or a new student to call for help, they have all of the necessary numbers and information and can use the appropriate terminology to ensure that they get the right help at the right speed.

Actually, you can break this into two sets of cards: (1) having a card with actions appropriate to each emergency and (2) the 999 (911, 111, depending on where you are in the world) card which has all the details that the caller will be asked for, ie the woman's name, address, telephone number etc. This is useful because the midwife might not know the woman (eg if working within the NHS) and because it means the midwife or person making the call does not have to take the notes away to find this info.

It can also be reassuring to make a set of cards with reminders of what to do in particular emergencies and details of which drugs and how much etc – you might not use them and this is stuff we know but just knowing you have them if you need them can be reassuring.

7 Emergency terminology

Alongside this, one midwife suggested:

It is worth making friends with the people at ambulance control and finding out what their local 'key words' are; ie the people on the phone always have key words that they are trained to respond to more quickly – it might be 'obstetric emergency' but it might be something else, and sometimes knowing these can make all the difference in getting help quickly when you need it.

This became an interesting topic of discussion though; while this tip can work well for midwives who are working in geographical areas where there is only one Trust, it is less useful for midwives in areas such as London who may be dealing with several different ambulance control regions who may use and respond to different terminology.

Summarise your notes

8

Because independent midwives may use their own notes which can differ from the Trust notes and may therefore be unfamiliar to the midwives who 'take over' care of the woman at the hospital:

I made a one-page summary sheet which I fill in for all women with key details at the beginning of labour. If necessary, I can then offer this to the NHS midwife taking over care after transfer. This saves hospital midwives having to read pages and pages of my notes – which are quite different to the hospital notes – especially helpful in an emergency situation.

9 Shoulder dystocia

Rotation, rotation, rotation for shoulder dystocia. The mother can rotate herself or be assisted to rotate from all fours to side to semi supine to side to all fours. The midwife can help the baby to rotate within the extra space in the mother's pelvis that her rotation offers.

Resuscitation

10

And finally:

If you are alone and need to resuscitate a baby, put in an airway sooner rather than later. A limp baby needs help to maintain an airway and one set of hands is not usually enough to do a jaw thrust and bag and mask, let alone cardiac compressions as well.



It would be remiss of us not to discuss a key and related element of midwifery practice in out-of-hospital settings which is a fundamental part of the practice of the midwives whose words are included in this article, and which arguably plays a far more important role in preventing emergencies than any number of rolled-up magazines or swimming floats. This has been noted innumerable times, but the more respect we pay to creating the conditions that support women being able to birth physiologically, the less likely we are to see problems in the first place. As with every other area of birth and midwifery, there are no guarantees, and on-going vigilance is vital, but creating an environment (in every sense of the word) that promotes the release of oxytocin and enables women to feel free to move, vocalise and express themselves according to their instincts is vitally important in the prevention of emergency situations. A frequent topic of conversation during the workshops mentioned above relates to the importance of avoiding intervention unless it is truly necessary, both in order to avoid the side effects of intervention and to benefit from the many marvellous ways that women's and babies' bodies have of coping with the journey of birth. For instance:

'Leave a baby's cord attached if you possibly can, even if you need to resuscitate him or her. Make sure your resuscitation kit is close by the place of birth and easy to move if mother moves during the final moments before birth. Where the baby needs help, his cord – even if initially flat – may refill and re-pulse, giving him much needed oxygen. Nothing is lost if you leave it. If you cut the cord, the placenta

cannot help the baby or you. When a baby is between his mother's legs, she, and his father, will call out to him, willing him to well-being. Their participation even during this challenging moment will help him now and them later as they make sense of this scary event. Talk to the baby yourself with love and welcome. Babies need to know they are welcomed and loved. It helps them be brave and breathe unaided.'

We often talk about fear as well and this involves some paradoxes. It can be normal – even natural – to fear emergencies (for instance, we have a colleague who 'runs through' how she would cope with possible emergency scenarios in her head on the way to a birth, which she finds reassuring) and the adrenaline produced by fear in the face of an actual emergency can sometimes be helpful in getting us quickly to maximum alertness. Fear of birth itself, however, is not conducive to promoting the release of oxytocin, yet the cultural context of birth – especially for those of us who also work in hospitals – makes it hard for some people to get beyond this. With this in mind, we offer the points in the sidebar below, which forms the introduction to these workshops and helps to put into context the fact that, if we do support physiology when attending births out-of-hospital, we are actually less likely to experience emergency situations at home than on the labour ward, and very unlikely to experience some even in a lifetime of midwifery practice!



Home birth emergencies in perspective

The following points are intended as a slightly fun, slightly serious way of alleviating some of the fear that exists about encountering emergencies during home births, and they look at how often a midwife is likely to see different problems in community settings. Of course, such figures are only averages: if, say, we can figure out that a midwife is likely to encounter a particular emergency situation once every 25 years then it might sound like a midwife who practises all their working life is probably going to see one at some point, but of course this is not the case. One midwife might practise for 50 years and never encounter that particular scenario, while another might experience this during the only six-week community rotation they ever undertake! The point is not to think it won't happen so we don't need to be prepared, because it is vital that we are up to date and ready for anything, but to understand that some of these scenarios are extremely rare, which many midwives find reassuring. It is also important to note that there is wide variation between papers in the statistical prevalence of emergency scenarios and it can often be hard to find recent and clear data, but for those who can tolerate a bit of uncertainty, even the rough figures are fascinating.

- If we look at the prevalence of uterine inversion, for instance, Cumming & Taylor (1978) cite a figure of 1 in 2176 (hospital) births, Hussain *et al* (2004) 1 in 1584 and Shah-Hosseini & Evrard (1989) 1 in 6407. Even if we take the highest of those estimates, this implies that a midwife who attends 25 births a year is, on average, going to encounter an inverted uterus once every 63 years. However, because women are more likely to have a physiological placental birth at home, the risk of inverted uterus from controlled cord traction is vastly reduced and so it will be seen even less frequently. In addition, Hussein *et al* (2004) found that, in 75% of the cases of uterine inversion that they studied, the third stage was mismanaged. So if the majority of the women the midwife attends birth their placenta physiologically, and the midwife provides appropriate care for those women who choose or need active management, that midwife is statistically going to see a uterine inversion roughly every two or three hundred years (exact figure indeterminable from currently available data).
- As the current RCOG Green-top guideline (Siassakos *et al* 2008) notes, the prevalence of cord prolapse also varies a bit from about 1 in 1000 to 6 in 1000 but a good study on which to base cord prolapse figures (whose results also happen to be roughly in the middle of the general variation) is that by Haire & Elsberry (1991) which focused on midwifery led care in the North Bronx. The rate of cord prolapse in this research was 0.3% (1 in 3000) so midwives attending 25 home births a year will, on average, see a cord prolapse every 120 years or so. Again, though, less intervention may mean you need to wait longer, as recent studies have shown that cord prolapse is more likely to occur where woman's membranes are artificially ruptured (Prabulos & Philipson 1998) or where the onset of labour is induced (Boyle & Katz 2005).
- Unusual presentations are exactly that – unusual. A retrospective review of births in South Glamorgan (Bhal *et al* 1998) showed the incidence of face presentation to be 1 in 1994 births and brow presentation 1 in 755 births. So a midwife could expect to see these on average once every 80 and once every 30 years respectively.
- The figures for shoulder dystocia range from 1 in 33 to 1 in 200 births but many of the studies on which the data are based are poor (Gherman *et al* 2006) and it is highly likely that some of the babies included in the higher figure did not have true shoulder dystocia and merely needed their mother to shift position slightly in order to birth. If, as an educated guess, we took the incidence of shoulder dystocia where the woman was not on her back on a hospital bed to be around 1 in 100, a midwife attending 25 home births a year is (again on average) going to experience a shoulder dystocia about once every four years. Many of these will be larger than average babies and so some (although not all) will be anticipated, and not all of these will occur at home because some of the women are likely to have been transferred to hospital during labour.
- Data on the need for neonatal resuscitation is difficult to interpret because the fact that a baby received resuscitation does not necessarily mean that baby required resuscitation, but the most commonly cited study on the need for resuscitation was carried out by Palme-Kilander (1992) and included 100,000 babies born in one year in Sweden. Of the babies that weighed 2.5kg or more, 1 in 100 required resuscitation, but 80% of those that were resuscitated only needed mask inflation. (So only 1 in 500 babies needed anything more than mask inflation). Using our model of 25 births a year, this means that our midwife is, on average, going to encounter a baby needing a bit of resuscitation once every four years, but only encounter a baby who needs more than 'bagging and masking' once every two decades. Again, some of these babies will have exhibited signs of distress before birth and their mothers may have already transferred to hospital.
- The rate of postpartum haemorrhage (PPH) is variable according to whether you classify it by volume of blood lost (as is the case in most studies) or according to the woman's condition (arguably more important in practice) but the figures in Fahy *et al's* (2010) study of holistic psychophysiological care showed that 1 in 36 women who received this kind of care experienced PPH (as opposed to nearly 1 in 9 women who had active management at a hospital). So this is the most common emergency situation that a midwife is likely to encounter, and our midwife could see a PPH once every 18 months or so but, again, this figure includes some women who will have a larger than normal blood loss but who are fine, and some who will need nothing more than an oxytocic. Serious PPH in the absence of intervention is relatively rare, so our midwife will, on average, have to practise for a bit longer before experiencing a PPH which will require more than basic management.

What can we learn from this? Mainly that, while keeping our knowledge and skills up is paramount, the really serious complications are also really rare. The three things that midwives are going to encounter on a regular basis are (in order of likelihood in the hands of a midwife who supports physiological birth) postpartum haemorrhage, neonatal resuscitation and shoulder dystocia. All of which have solutions which we can study, learn, practise and debate, in order to be well prepared and able to cope with them when they happen.

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