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SRI LAKSHMI NARAYANA INSTITUTE OF MEDICAL SCIENCES

Date: 20.10.2019

From

Dr. Kalarani
Professor and HOD,
Department of Obstetrics and Gynaecology
Sri Lakshmi Narayana Institute of Medical Sciences,
Bharath Institute of Higher Education and Research,
Chennai.

To

The Dean,
Sri Lakshmi Narayana Institute of Medical Sciences,
Bharath Institute of Higher Education and Research,
Chennai.

Sub: Permission to conduct value-added course: Labour Ward Drills

Dear Sir,

With reference to the subject mentioned above, the department proposes to conduct a value-added course titled: **Labour Ward Drills** on April 2019 to Jan 2020. We solicit your kind permission for the same.

Kind Regards

Dr. Kalarani,

FOR THE USE OF DEANS OFFICE

Names of Committee members for evaluating the course:

The Dean: Dr. Jayalakshmi

The HOD: Dr. Kalarani

The Expert: Dr. Durga

The committee has discussed about the course and is approved.

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Dean

Subject Expert

HOD

Dr. G. JAYALAKSHMI, BSC., MBBS., DTCO., M.D.,
DEAN
Sri Lakshmi Narayana Institute of Medical Sciences
Osudu, Agaram, Kudapakkam Post,
Villanur Commune, Puducherry-605502.

ASSOCIATE PROFESSOR
DEPT. OF OBSTETRICS & GYNAECOLOGY
Sri Lakshmi Narayana Institute of
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PROFESSOR
DEPT. OF OBSTETRICS & GYNAECOLOGY
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SRI LAKSHMI NARAYANA INSTITUTE OF MEDICAL SCIENCES

Circular

15.12.2018

Sub: Organising Value-added Course: Labour Ward Drills - reg

With reference to the above mentioned subject, it is to bring to your notice that Sri Lakshmi Narayana Institute of Medical Sciences, **Bharath Institute of Higher Education and Research**, is organizing **“Labour Ward Drills”**. The course content and registration form is enclosed below.”

The application must reach the institution along with all the necessary documents as mentioned. The hard copy of the application should be sent to the institution by registered/ speed post only so as to reach on or before 30.12.2018. Applications received after the mentioned date shall not be entertained under any circumstances.

DEAN

Dr. G. JAYALAKSHMI, BSC., MBBS., DTCD., M.D.,
DEAN
Sri Lakshmi Narayana Institute of Medical Sciences
Osudu, Agaram, Kudapakkam Post,
Villanur Commune, Puducherry - 605502.

Course Proposal

Course Title: Labour Ward Drills

Course Objective:

1. Obstetric emergency -overview
2. Conduct of an Labour drills
3. Practical skills - PPH
4. Practical skills - Maternal collapse
5. Practical skills - Eclampsia
6. Practical skills - Sepsis
7. Practical skills - category 1 C-section
8. Problem based case scenario
9. Role of anaesthesia in emergency
10. Role play

Course Outcome: To gain Knowledge about Labour Ward Drills

Course Audience: Final MBBS Undergraduates

Course Coordinator: Dr.DURGA

Course Faculties with Qualification and Designation:

1. Dr. Kalarani, Prof. and HOD, OG
2. Dr. R. DURGA, Assistant Professor, OG

Course Curriculum/Topics with schedule (Min of 30 hours)

SINo	Date	Topic	Time	Hours
1	2.01.2019	Obs emergency - overview	4.00pm -7.00pm	3
2	10.01.2019	Conduct of an labour drill	4.00pm -7.00pm	3
3	8.02.2019	Practical skills - PPH	4.00pm -7.00pm	3
4	16.02.2019	Practical skills - Maternal collapse	4.00pm -7.00pm	3
5	3.03.2019	Practical skills -Eclampsia	4.00pm -7.00pm	3
6	12.03.2019	Practical skills - Sepsis	4.00pm-7.00pm	3
7	26.03.2019	Practical skills - Category 1 C SEC	4.00pm -7.00pm	3
8	5.04.2019	Problem based case scenario	4.00pm -7.00pm	3
9	11.04.2019	Role of Anaesthesia in emergency	4.00pm -7.00pm	3
10	25.04.2019	Role play	4.00pm -7.00pm	3
		Total Hours		30

REFERENCE BOOKS: (Minimum 2)

1. Willaims Obstetrics Edition 21
2. Strat OG

VALUE ADDED COURSE

1. Name of the programme & Code

Labour Ward Drills OBGY 10

2. Duration & Period

30 hrs & JANUARY 2019 TO JUNE 2019

3. Information Brochure and Course Content of Value Added Courses

Enclosed as Annexure- I

4. List of students enrolled

Enclosed as Annexure- II

5. Assessment procedures:

Multiple choice questions- *Enclosed as Annexure- III*

6. Certificate model

Enclosed as Annexure- IV

7. No. of times offered during the same year:

1-JANUARY 2019 TO JUNE 2019

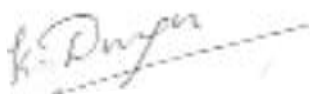
8. Year of discontinuation: 2020

9. Summary report of each program year-wise

Value Added Course					
Sl. No	Course Code	Course Name	Resource Persons	Target Students	Strength & Year
1	OBGY 10	LABOUR WARD DRILLS	Dr. K.DURGA	FINALYEAR MBBS	JANUARY 2019 TO JUNE 2019

10. Course Feed Back

Enclosed as Annexure- V



RESOURCE PERSON

ASSOCIATE PROFESSOR
DEPT. OF OBSTETRICS & GYNAECOLOGY
Sri Lakshmi Narayana Institute of
Medical Sciences
OSUDU, PUDUCHERRY.



COORDINATOR

Dr. G. JAYALAKSHMI, BSC., MBBS., DTCD., M.D.,
DEAN
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Osudu, Agaram, Kudapakkam Post,
Villanur Commune, Puducherry-605502.

PARTICIPANTS BOOKLET

LABOUR WARD DRILLS

INTRODUCTION

As massive obstetric hemorrhage is the leading cause of maternal mortality worldwide and a major contributor to maternal morbidity, this subject deserves center stage in the training of midwifery and obstetric staff. That this training need is global is highlighted by instances of substandard care with deaths as a result of postpartum hemorrhage (PPH) in recent UK confidential reports (CEMACH).

Although much knowledge can be gained at the bedside, practical teaching with a structured approach to this unique life-threatening emergency provides a sense of security and preparedness that cannot be obtained in any other manner. Several well-established courses focus on practical emergency teaching, and further information is available through the websites of many professional organizations.

Some of the courses run in the UK and abroad are listed in Addendum A at the end of this chapter. These courses present a structured approach to resuscitation with skills, drills and scenarios taught and applied to the seriously ill patient. As good as such courses may be, however, they cannot begin to train everyone in all things, and there remains a need for strong local supplementation in the form of multidisciplinary training. Indeed, the latter has been shown to be effective in improving knowledge and clinical outcomes.

PRACTICAL TEACHING

The same preparations should be made whether the teaching skills, drills or scenarios are to be used (see below).

Knowledge

A sound knowledge base is required before practical teaching can be undertaken successfully. An initial lecture/workshop/discussions should be organized if staff are unfamiliar with practical teaching or if new material is to be taught, as this allows staff to prepare themselves. It also helps reinforce the idea that practical teaching is an opportunity to put what one knows into practice.

Environment

As suitable locations should be found that is conducive to the teaching that has been planned. The layout of the room should allow those involved to access the patient (if the teaching is patient oriented) and those watching to see clearly. Heating and ventilation should be considered, but acoustics are vital and can sometimes conflict (e.g. noise from an open window).

When teaching about obstetric hemorrhage, a delivery room or an operating theater makes for a very realistic teaching environment, but it occasionally conflicts with clinical needs. To avoid this, one can plan impromptu teaching when the delivery suite is quiet. Impromptu or 'unannounced' teaching also is good for testing how the systems are working (i.e. drills), but, as it does not allow prior planning in terms of who or how many people can be taught, it may be less useful when running clinical scenarios.

Another alternative is to consider reducing elective surgery to facilitate training in an operating theater at a given time, remembering, of course, that labor ward workloads are totally unpredictable and a back-up teaching location needs to be available (for example, a seminar room or antenatal classroom).

Setting the tone

The instructor should give a general explanation at the beginning of the teaching session in order to establish the mood and motivate the learners by outlining the usefulness of the content. A simple introduction is all that is required. For example, 'Obstetric hemorrhage is the leading cause of maternal death globally, and today we are going to run through a simulated case of placental abruption.

The aim is for you to consolidate and apply your knowledge in this area, a process which should assist you when you face a similar situation in a real emergency'. At this stage, it also may be useful to introduce the clinical problem in the context of recent events either locally or something that may have been reported in the lay press.

The specific objectives of the session should then be explained along with what is expected of everyone in terms of who is going to do what, and whether questions can be asked throughout or be kept till the end. It is extremely useful to allow questioning throughout, as many people will forget if asked to wait till the end. However, this process can spoil the momentum of a scenario and role play session and must be judged anew in each session.

Dialogue

The actual 'doing' in practical teaching and role play works through the simulation that comes from starting from very specific instructions. Progress can vary according to what the learner does, and the instructor needs to stay alert and flexible in order to remain in control, to cover all intended teaching points and to guide the session to an appropriate conclusion.

Feedback

This is sometimes known as critique or debriefing and is an essential part of the learning process as it promotes retention of important points. A number of techniques can be used, but the main idea is to identify and promote the good (salient) points (remembering others in the teaching group may not have known these beforehand) and to identify in a sensitive fashion, any deficiencies (lack of knowledge or errors).

One form of systematic feedback, described by Pendleton and known as Pendleton's rules, comprises four stages: the learner says what she/he did well; then what she/he could improve upon; this is followed by the trainer stating what the learner did well; followed by what could be improved upon. Allowing the learner to comment first provides the instructor an opportunity to assess the candidate's insight into her or his own ability and behavior. The instructor then has the opportunity to highlight both good practice and areas for improvement not already covered by the learner in order to stress and reinforce learning points to all present.

Another method of feedback involves debriefing as a learning conversation. This is less rigid in style compared with the above and involves:

Making an opening gambit (individualized start to the conversation depending on how things went, such as 'That seemed to go well, what do you think?' or 'That was rather difficult, let's see if we can work out what was going on' etc.);

Jointly exploring any issues that emerge (listening and responding, and involving the whole group to widen the conversation as needed);

Share thoughts of whole group and the instructor considering the learning of the whole group, while being careful not to overload the practice candidate.

Closure

Bearing in mind that adults need to understand something before they change their behavior, it is crucial that questions and discussion be encouraged. A summary of the key learning points from the session should then be provided, so that everyone leaves the teaching/learning with a clear message of the most important issues.

DRILLS, SKILLS AND SCENARIOS

These three styles of teaching differ in their aims. Each requires and tests different skills and knowledge, the features of which are summarized in Table 1, together with examples of suitable teaching material.

Drills

These are practice or 'dummy' runs and are comparable to fire practices in testing local systems. Running a drill not only allows local scrutiny (i.e. what actually happens when the alarm is put out), but also can be a very effective test of local arrangements and services as well as staff knowledge of them.

Preparations for a drill

When running drills, the staff should be faced with the drill in a normal clinical area, unprepared, in order to receive a realistic idea of what would happen in a true situation. Clearly, a drill should not conflict with patient care, and timing must depend to some extent on existing workload. The lead clinician for the teaching sessions should, however, have informed the lead midwife and, in the case of an obstetric hemorrhage, the transfusion hematologist and other necessary individuals, such as transportation staff. This is not only a matter of courtesy, but also to plant timings in order to avoid clashes of interests. The transfusion hematologist may prepare spare serum for grouping and make empty blood bags available for the 'dummy run'.

Running the drill

Figure 1 illustrates an example of an assessment sheet for a massive obstetric hemorrhage drill, suggesting things that can usefully be monitored including:

1. Who responds to the initial emergency buzzer?
2. Is the appropriate emergency call put out?
3. How effective is the emergency bleeping system?
4. Is transportation alerted and respond?
5. Do transfusion staff receive any communication?
6. How quickly does blood arrive at the bedside?
7. How quickly is the patient transferred to the operating theater?
8. When does the anesthetist/consultant/hematologist arrive?

• Time emergency buzzer pulled	<input type="text"/>						
• Staff responding to the initial buzzer	<input type="text"/>						
• Time switchboard received emergency call	<input type="text"/>						
• Staff responding to the emergency bleep	<input type="text"/>						
<table border="1"> <thead> <tr> <th>Name</th> <th>Grade</th> <th>Time</th> </tr> </thead> <tbody> <tr> <td colspan="3" style="height: 40px;"></td> </tr> </tbody> </table>		Name	Grade	Time			
Name	Grade	Time					
• Initial treatment of ABC (airway, breathing and circulation) resuscitation instituted quickly and effectively	Yes / No						
<div style="border: 1px solid black; padding: 5px; min-height: 30px;"> If no – comments </div>							
• Time transportation person arrives in blood transfusion	<input type="text"/>						
• Time blood samples received in the laboratory	<input type="text"/>						
• Time appropriate blood arrives at patient's bedside	<input type="text"/>						
• Time patient transferred to the operating theater	<input type="text"/>						
<div style="border: 1px solid black; padding: 5px; min-height: 30px;"> Other comments: </div>							

Figure 1 An assessment sheet for massive obstetric hemorrhage drill. This assessment sheet can be expanded to include the response times for individual doctors, and their reactions and action.

Table 1 Key features and differences in skills, drills and scenario teaching

	<i>Skill</i>	<i>Drill</i>	<i>Scenario</i>
Definition	Acquisition of a skill	A chain of events in response to a problem	Improvized clinical roleplay
Aim of the teaching	Ensure correct technique	Test the local emergency system	Apply and practice clinical care in a improvized set-up
Teaching environment	Seminar room	Throughout hospital in day-to-day environment	Seminar room, operating theater or delivery room
Examples of things suitable for teaching and testing in relation to obstetric hemorrhage	Brace suture Rusch balloon Aorticaval compression CPR Bimanual uterine compression IV cutdown	Response to the emergency massive obstetric hemorrhage call	APH – abruption – placental previa PPH – atony – trauma – RPOC
Skill mix	Doctors and midwives	All delivery suite staff and laboratory staff, hematologists and porters	Multidisciplinary: obstetricians, midwives, anesthetists, pediatricians

CPR, cardiopulmonary resuscitation; APH, antepartum hemorrhage; PPH, postpartum hemorrhage; RPOC, retained products of conception

Such analyses can help to illustrate system failures and modify local policies. The identification of problems stimulates and informs development of appropriate guidelines. Clarifying the roles of diverse staff and streamlining activity can also improve future responses and improve care. Such developments can be monitored at future drills and improvements in the system should be fed back to staff. Having run drills for obstetric hemorrhage at Queen Charlotte's and Chelsea Hospital for many years, the following are examples of problems identified and system changes made in response.

Communication problems and how they were addressed As identified in numerous Confidential Enquiries, problems in communication often hamper emergency responses. We found that we struggled with instructions from clinicians to blood transfusion staff regarding what was needed and when it was needed: Was it possible to wait for group-compatible blood or even cross-matched blood? How long to wait to have blood at the bedside? What clotting products were needed when? These are some examples of questions that are often not clarified 'over the phone'. It soon became obvious that this job was normally delegated to someone very junior on the delivery suite and misunderstandings were common. Our response was first, to install a red phone in the obstetric operating theater based on the delivery suite that linked exclusively with a red phone in the transfusion laboratory. This enabled blood requirements to be discussed by the anesthetist directly with transfusion staff without having to leave the patient to go outside the theater. Second, we then identified time limits for transfusing blood at the bedside (for example, 'We need 4 units of blood within 30 minutes'), rather than discussing whether to wait for blood to be cross-matched or not. This left the laboratory in no doubt of the clinical needs and has minimized delay in blood arriving at the bedside when needed.

Problems with transportation and how they were addressed In the past, the transportation person arrived in the delivery suite when a hemorrhage call was put out to take blood samples to the laboratory for grouping/cross-matching; however, this was deemed inefficient and delayed blood being brought to the bedside in the most urgent cases.

Our solution was first to change the process so that the transportation person went straight to the laboratory in readiness for the urgent need of collecting O-negative blood. Second, a pneumatic chute was installed for samples to be sent to the laboratory which has also helped in this context. If the clinical condition of the patient can wait for group-compatible blood, the transportation person stays in the transfusion laboratory until the sample has arrived by chute and has been grouped, ultimately bringing the appropriate blood to the delivery suite. This type of thinking is especially relevant in large modern hospitals where clinical and laboratory services are not only on different floors but in different, often widely separated, buildings.

Skills

The teaching of practical skills is of great importance in obstetric hemorrhage teaching sessions. The need for specific teaching often becomes apparent during the discussion and questioning when running a scenario. Things may have been mentioned which are not fully understood, and such circumstances illustrate how important it is for scenario teaching to be constructive (see below for examples). Staff must feel able to question what something is or how it is done. In obstetric hemorrhage, the following skills may be highlighted and need to be taught:

1. Medical skills
2. bimanual uterine compression
3. aortic compression
4. cardiopulmonary resuscitation
5. Surgical skills
6. insertion of an inflatable uterine balloon
7. insertion of a Braces suture
8. intravenous cut-down for venous access.

Preparation for skills teaching

Teaching any practical skill that may be required in an emergency, should be executed slowly and calmly, giving ample time for reflection, questions and practice. The use of manikins and surgical aids works well, but one must remember to point out the differences to be expected when working *in vivo* (such as the need to keep an inflatable uterine balloon well into the cavity while inflating it, or how to deal with the tendency for the braces suture to slip off the uterine cornual areas ('the shoulders') while pulling it tight).

Running the skills teaching

This teaching process is best performed in four steps:

1. *Step 1* The instructor demonstrates the skill in silence. The skill is performed at normal speeds so that the candidates appreciate the ultimate aim.
2. *Step 2* The instructor then demonstrates the skill slowly with a commentary. Providing the commentary and breaking the technique down adds understanding to the process and can highlight points of caution and safety as well as adding helpful hints.
3. *Step 3* The learner provides the commentary, which the instructor follows while demonstrating the skill for the third time. The instructor must be careful not to assume knowledge on the learner's part during this process and stop in mid-flow if errors are made. This step is crucial in terms of surgical safety, as the instructor can tell what the learner understands. Any errors or omissions can be addressed immediately. This step may need to be repeated.
4. *Step 4* Once step 3 is completed satisfactorily, the learner is allowed to perform the skill while providing a commentary under direct supervision.

Scenario teaching

These practical teaching sessions describe a clinical picture and facilitate role play to manage the problem. The aim of such teaching is to demonstrate appropriate clinical behavior, including not only whether an individual has the requisite level of clinical knowledge and how it is applied, but also how individuals work together as a team and communicate. Such interactions can be complex and are worth describing further before illustrating massive hemorrhage scenarios.

Teamwork

The ability to work together as a team is absolutely requisite to good clinical care. Individuals possess different levels of expertise, and the group's ability to carry out specific tasks depends upon the interpersonal skills of all team members. Watching a group working together can highlight its problems and help focus remedial action in terms of teamwork (or lack thereof) and occasionally individual behavior. Every team needs a leader, and deciding who the leader is to be can sometimes be difficult. It is important to recognize that the team leader need not be the most senior person and, as the scenario develops,

sometimes the leader will need to change. In any event, the leaders should have appropriate knowledge and skills, be a good communicator and motivator, be able to maintain situation awareness (see the whole picture) and distribute the workload. At the same time, watching staff adapt to each other can be hugely instructive, and discussing these issues afterwards can help them understand each other, as well as individual needs and stresses.

Communication

The process of asking for and providing information and of listening to what other people are trying to say should be simple. It clearly is not, however, and is repeatedly raised as a problem area in Confidential Mortality Reports. In the Confidential Enquiry Report of 1997–1999⁶, the greatest (and recurrent) cause of substandard care in maternal deaths was failure of communication and team working between professionals. When running practical teaching sessions, communication within the team can be witnessed and discussed afterwards. Generally speaking, when dealing with any emergency, single precise commands should be addressed to specific individuals. Voice should not be raised and an air of calm control ideally should be apparent. Unfortunately, some individuals tend to become overexcited, and noise levels can build up in emergency situations, all of which can affect everyone's behavior, as well as make it exceedingly difficult to hear what is being said without resorting to shouting. Pointing out such behavioral features under stress during mock emergencies can only help to raise awareness.

Preparing for scenario teaching

When preparing for roleplay, it is important to try to make things as realistic as possible.

The patient Depending on the subject, either a manikin or a live person is appropriate. Manikins tend to be good for collapse and cardiopulmonary resuscitation, whereas live models are better when responses are needed (for example, the model can pretend to fit in clampsia, or can groan and describe pain with a rhyme). Either can suit massive obstetric hemorrhage. However, the advantage of a live model is that everyone usually learns a great deal with regard to how all levels of staff communicate with a patient in such emergencies.

The equipment Running clinical scenarios is more realistic if appropriate equipment is available. This may be quite simple (e.g. lateral tilt and oxygen), but using it helps to illustrate what important features have been dealt with and what omissions have occurred (e.g. intravenous access or urinary catheter). Table 2 suggests a minimum equipment list for a massive hemorrhage scenario.

Table 2 Basic equipment list for practical obstetric hemorrhage training

Airway and breathing

Guedel airway

Oxygen mask with bag and tubing Stethoscope

Circulatory

Wedge (to provide lateral tilt for the pelvis) Tape

Two large-bore intravenous cannulae (14 F) 20-ml syringe

Blood tubes for full blood count (FBC), cross-match (XM), clotting studies

2-liter bag of crystalloid run through administration sets Catheter

Specific equipment for massive obstetric hemorrhage
Intrauterine inflatable balloon and bladder syringe

Running the scenario

1. *Who should be involved?* It is often difficult to decide who should be involved in the role play and who is better left to watch quietly. If staff members are inexperienced with scenario teaching, it is best initially to ask for volunteers. Lack of volunteers may be due to simple factors such as being shy, but it may result from fear of ignorance being exposed or raising issues of competency. It is for this reason that didactic teaching is absolutely required prior to running a scenario training, so that the theoretical material has already been covered. If this has taken place, those previously unsure of the theory behind the problem can build on their newly acquired knowledge in a practical way. Indeed, once members of staff become used to this method of teaching, more will come forward. Occasionally, someone may need to be invited to join in, but this should be done sensitively and with support.
2. *Give people defined roles* People need to be given a defined role and told what they can or cannot expect in terms of back-up. For example, 'You are the senior house officer who has just answered the emergency buzz to this multiparous patient. She has just bled briskly following spontaneous vaginal delivery. The midwife is here, but all other staff are busy with an emergency in the theater and you should not expect help for at least 10 minutes. Please carry on as you would in real life. I will give you any observations you request.'
3. *Keeping the scenario going* The patient can be primed to give certain responses, and monitors can be prepared with readings (cardiotocograph paper stick-ing out of a machine/blood pressure recordings on a monitor, etc.), but it is the instructor's role to keep the scenario flowing and give as much or as little information as is requested. The scenario needs to progress, however, and gentle encouragement and occasional subtle prompts can assist the learner in achieving an understanding of the key treatment points. The aim of running a scenario is not to demonstrate ignorance on the part of one or more individuals, but to empower them to apply their knowledge in a logical and timely manner. Depending on the performance and ability of the candidate(s), the scenario can be resolved early or become more complex. This should be anticipated by the instructor well in advance. If the candidate is becoming stressed, but has done all the basic key treatment points, then the scenario can resolve and the candidate can be congratulated. If the key treatment points have not been achieved, on the other hand, then help can be at hand in the form of a registrar or consultant arriving to help. If the learner is doing a fantastic job, then the scenario can progress and more complex features can be added.
4. *Prompting* This can be difficult if it is to be done sensitively without demoralizing or embarrassing the learner; in reality, it requires skill and tact to make this form of teaching constructive.

The following examples may be useful in the massive hemorrhage situation:

- Lateral tilt can be forgotten in the pregnant woman and a prompt asking whether there is 'anything else

that could improve the circulation?’ may jog a response

- If the candidate has not registered or responded to a worrying observation such as a tachycardia or hypotension then these can be repeated and made worse, e.g. ‘the tachycardia has now increased to xxx or the blood pressure is now yy/zz or unrecordable’
 - Comment that uncross-matched blood is now available if staff have lost their train of thought and had already mentioned they would request blood but then forgotten about it
 - Providing the patient’s physiological responses can slow down/speed up the action as required. For example, once intravenous fluids have commenced, inform the candidate that the blood pressure is improving but that vaginal bleeding is still brisk. This will encourage the candidate to move on to assess the cause
 - If the candidate moves away from the intravenous access without taking any bloods for laboratory investigation, the instructor may slow things down by asking if she/he would do anything else before moving on to assess the cause of the bleeding. The candidate could also be prompted with an empty syringe and blood tubes, if necessary, to make a teaching point.
5. *Drawing things to a logical conclusion* When the scenario has run its course, all people who have been involved in the role play should be congratulated and thanked for their participation, and then encouraged to engage in the feedback process as described above. Questions and discussion should then be encouraged before closure, with particular emphasis given to the key treatment points.

Examples of possible massive obstetric hemorrhage scenarios are provided, together with their key treatment points in Addenda B and C.

SUMMARY

Setting up practical teaching locally improves local processes, builds on teamwork, aids with communication, and improves clinical knowledge and its application in the emergency situation. It is best kept simple and, because it can be stressful to those involved in role play, it must be introduced sensitively and conducted within an encouraging atmosphere. Staff need to know what style of teaching will be used, and what it aims to accomplish. Advertising the planned content of the session in advance will encourage staff to prepare and capitalize on enthusiasm and learning. Good luck.

Sample scenario for PPH due to atonic uterus

Instructor's information

This scenario is one of PPH due to uterine atony. You are looking for rapid resuscitation of the woman at the same time as diagnosing and treating the problem (uterine compression, evacuation of clots, administration of uterine tonic drugs and checking for trauma). Depending on how the scenario flows you can allow for rapid recovery, or not – if bleeding persists there can be discussion about other causes of hemorrhage and you are looking for an early decision to go to the operating room for an examination under anesthesia to exclude trauma/retained products.

can be obstetric or midwifery as either should be able to manage this emergency. If further progress to the theater is needed, more senior help can arrive as requested.)

Candidate information

A 34-year-old grand multipara delivered a healthy baby boy weighing 4.00 kg 40 minutes ago. She had physiological management of her third stage, and the placenta was delivered 10 minutes ago. The midwife has noticed fresh and brisk vaginal bleeding and accosts you as you were walking past the delivery room.

Initial observations

The patient is talking but very pale; pulse 110/min; blood pressure 120/80 mmHg; large volume of blood on bed and floor. Please proceed as you would in real life together with the midwife who called you. I will give you any observations you request. (The candidate

*Instructor's notes/Key treatment point
to be achieved*

- Call for help and initiate the massive obstetric hemorrhage drill
- Recognize that this is a circulatory problem: progress rapidly through airway and breathing and attach face mask for oxygen
- Establish intravenous access
- Send blood for full blood count, cross-match, coagulation and U&Es
- Commence warmed intravenous fluids
- Do clinical examination and diagnose uterine atony
- Administer transabdominal uterine massage
- Administer a uterotonic agent
- Perform a vaginal examination and evacuate clots
- Check for obvious vaginal or cervical lacerations
- Do bimanual uterine compression
- Go through medication cascade logically and give intravenous fluids and blood appropriately
- Consider examination under anesthetic if patient fails to respond and consider other causes of PPH
- Knowledge of surgical techniques to control hemorrhage, i.e. Ruseh balloon, brace suture, etc.

Addendum C: Sample scenario for PPH not due to atony

This scenario is more complex – a precipitate labor with the possibility of a concealed abruptio or genital tract trauma. The focus will be on distinguishing between abruptio, genital tract trauma and retained products/membranes with/without disseminated intravascular coagulation (DIC). How this scenario will unfold will depend on the learner's experience and ability. You are looking for rapid resuscitation of the woman at the same time as diagnosing and treating the problem (uterine compression, evacuation of clots, administration of uterotonic drugs and checking for trauma). On this occasion bleeding persists and you are looking for an early decision to go to the theater for an examination under anesthetic. For a junior trainee you may choose to let them find and repair a vaginal or cervical tear, but for a senior trainee you cannot take them further with DIC, blood and clotting products, checking for acidosis and need for ventilation, etc.

Candidate information

A 24-year-old primipara is induced at 42 weeks' gestation. She is having intermittent abdominal pain when the prostaglandin is inserted. One hour later she is transferred to the delivery suite in extreme pain and 20 minutes later she delivers a 3.8 kg baby boy rapidly followed by the placenta.

Initial observations

Talking; pulse is 100/min; blood pressure 115/70 mmHg; steady trickle of blood vaginally.

Please proceed as you would in real life and I will give you any observations you request.

Instructor's notes/Key treatment points achieved

- Call for help and institute massive hemorrhage call
 - Recognize circulatory problem. Move swiftly through airway and breathing. Administer face mask oxygen
 - Insert intravenous access
 - Send blood for full blood count, cross match and coagulation screen
 - Commence warmed intravenous fluids
 - Abdominal examination to confirm uterus well contracted
 - Vaginal examination to check for vaginal lacerations
 - Transfer to theater for analgesia and examination
 - Catheterize
 - Full EUA: check vagina, cervix and uterine cavity
 - If trauma found – timely repair?
 - If products membranes remaining – evacuation performed?
- If DIC – knowledge of blood products, significance of acidosis, need for ITU

Emergencies on the labour ward may have obstetric, anaesthetic, or general

medical causes.

The response to any urgent call to labour ward must adopt an 'ABC' approach with early recognition of problems specific to the parturient. There is good evidence that mandatory skills and drills training can improve outcome in emergency situations.

Obstetric anaesthetists primary role in the maternity unit is the provision of anaesthesia and analgesia to women in labour and who require Caesarean delivery. In addition, they are essential members of the multidisciplinary team who will assist with the management of the various types of emergency that can arise in the maternity unit.

Emergency problems in obstetric patients pose a unique set of challenges....

These situations are generally rare, so even experienced clinicians may only have limited experience.

Obstetric units are frequently geographically remote, so clinicians may be working in unfamiliar surroundings.

Obstetric patients are generally fit and healthy, so, faced with a physiological insult, will initially compensate, before deteriorating precipitously, prompting an urgent call for help.

The emergencies that may lead to an urgent call to labour ward are.....

1. **Maternal collapse** is the generic term that may be used to describe the endpoint of a variety of clinical problems. It is defined as 'an acute event involving the cardiorespiratory systems and/or brain resulting in a reduced or absent conscious level (and potentially death), at any stage in pregnancy and up to 6 weeks postdelivery

- Maternal collapse may arise as a result of pregnancy-related conditions, pre-existing disease, or co-incidentally during pregnancy

Four Hs and four Ts

- Hypoxia
- Hypovolaemia
- Hypothermia
- Hypo- or hyper-kalaemia/- magesaemia/-calcaemia,
- Thromboembolism
- Toxins
- Tamponade
- Tensionpneumothorax

can be used to classify common causes of collapse in pregnancy, with the addition of eclampsia and intracranial haemorrhage

2. Maternal cardiac arrest

- Maternal cardiac arrest is rare, occurring in pregnancies and clinicians may never witness a case of maternal cardiac arrest over the course of their careers.

- Standard Advanced Life Support applies in the pregnant patient with two modifications

- (i) The patient should be resuscitated with a left lateral tilt of at least 15° (but not 30°) to minimize aorto-caval compression, which reduces the efficacy of chest compressions during resuscitation. •
- (ii) Perimortem Caesarean section should begin within 4 min of arrest and be accomplished by 5 min.
 - a. The primary reason for perimortem Caesarean is to maximize the chance of maternal survival by relieving aorto-caval compression, improving venous return, and promoting transfusion of blood from the placental bed.
 - b. Once arrest occurs, fetal survival is also optimized by rapid delivery;
 - c. The best chance of survival for fetuses occurs when delivery occurs within 5 min of maternal arrest.
 - d. equipment required to perform a perimortem Caesarean section should be kept readily available as standard in any area that routinely cares for pregnant patients.
 - e. As with all cases of cardiac arrest, consideration should be given to reversible causes while resuscitation continues, Hypovolaemia may be the result of haemorrhage, which may be concealed.
 - f. Relative hypovolaemia can also occur secondary to vasodilatation, for example, due to sepsis, the leading indirect cause of maternal death in the most recent maternal death enquiry.
 - g. Cardiac disease, including myocardial infarction, arrhythmias, and cardiomyopathy, was the most common indirect cause of death and should also be considered as a cause of maternal cardiac arrest. • pulmonary or amniotic fluid embolism.

3. Eclampsia

- Pre-eclampsia is defined as new hypertension [diastolic arterial pressure (DAP) 90 mm Hg or systolic arterial pressure (SAP) 140 mm Hg] presenting after 20 weeks of pregnancy with significant proteinuria.
- Eclampsia is a convulsive disorder associated with pre-eclampsia.
- Control of arterial pressure
 - In patients with severe hypertension, arterial pressure should be

controlled to SAP of 150 mm Hg and DAP between 80 and 100 mm Hg, using one of the following agents: • † labetalol (i.v. or orally), • † hydralazine (i.v.), • † nifedipine (orally).

- Before administration of hydralazine, consideration should be given to administering a fluid challenge of 500 ml of colloid, in order to prevent a catastrophic decrease in arterial pressure upon vasodilatation.

Prevention and treatment of seizures

- All patients who suffer eclamptic seizures should be treated with magnesium sulphate.
- A loading dose of 4 g should be administered i.v. over 5 min. This should be followed by an infusion of 1 g h21, which should be continued for 24 h.
- Recurrent seizures should be treated with a further bolus dose of 2–4 g over 5 min
- In contrast to seizures of other aetiology, diazepam, phenytoin, and other anticonvulsants, should not be used in eclampsia.
- At high plasma levels (5–6.5 mmol litre⁻¹) magnesium can result in paralysis of respiratory muscles and respiratory arrest. • airway should be maintained, and 10 ml of 10% calcium chloride should be given
- Treatment with magnesium sulphate should also be considered in
- all obstetric patients with severe pre-eclampsia.

This includes:

- † severe hypertension (DAP 110 mm Hg or SAP 160 mm • Hg),
- † mild or moderate hypertension associated with:
- † severe headache,
- † visual disturbances,
- † papilloedema,
- † liver tenderness,
- † clonus,
- † HELLP (Haemolysis, Elevated Liver enzymes, Low • Platelets) syndrome,
- † platelets count decreasing to below 100*10⁹ litre,
- † abnormal liver enzymes.

High ‘spinals’

- The term ‘high spinal’ is used to describe a subarachnoid block that has extended above the higher thoracic dermatomes. However, inadvertently high block can also arise as a complication of epidural analgesia/ anaesthesia.
- There have been no reported deaths secondary to high spinal in the last 20 yr
- Maternal resuscitation has, however, resulted in hypoxic–ischaemic encephalopathy of the baby
- Hypotension and bradycardia secondary to sympathetic block of vasoconstriction and cardiac accelerator fibres. This can be compounded by aorto-caval compression.

- † Respiratory arrest after loss of motor supply to the intercostal muscles and the diaphragm.
- † Loss of consciousness secondary to lack of blood flow and block of the reticular activating system
- After resuscitation, management of a high spinal is essentially supportive.
- High-flow oxygen
- If apnoeic or shows signs of respiratory distress, intubation and ventilation.
- Cardiovascular support consists of i.v. fluids, the use of vasopressors, or ephedrine and atropine.
- Left lateral tilt.
- Fetal monitoring/ and Caesarean delivery may be necessary
- Anaesthesia and ventilation should be continued until the block has receded to the extent that the patient is able to safely maintain their airway and breathe spontaneously.

4. Haemorrhage

Haemorrhage is the most common cause of maternal collapse

- post-partum haemorrhage-placenta praevia, placenta accreta, placental abruption
- Uterine rupture, and ectopic pregnancy
- occult bleeding may occur, especially after Caesarean section and ectopic pregnancy.
 - Other rare causes of occult bleeding include hepatic rupture and splenic artery rupture.

Initial management should include

- Inserting two large-bore i.v. cannulae,
- Administering high-flow oxygen, and obtaining blood samples for full blood count, coagulation profile, and group and screen.
- Rapid i.v. fluid resuscitation with crystalloid or colloid
- Patient warming
- While resuscitation continues, attempts should be made to identify and treat the underlying cause of haemorrhage. This may require transfer to the operating theatre.
- Coagulation factors should be administered earlier rather than later during resuscitation.

5. Uterine atony

Surgical treatments include a

- B-lynch (brace) suture, Rusch balloon insertion, surgical ligation of the external iliac arteries, or hysterectomy.
- Intervention radiology can also be used to identify and occlude a specific bleeding point.

6. Sepsis

- The onset of sepsis may vary from being insidious and non-specific to being overwhelming and rapidly fatal.
- It is characterized by reduced systemic vascular resistance due to vasodilatation, tachycardia, and tachypnoea, and the development of a metabolic lactic acidosis.
- A raised white cell count is commonly associated with sepsis; however, pregnancy also leads to an increase in white cell count, particularly during labour.

Management of the septic pregnant patient

- Resuscitation,
- Identification and
- Treatment of the source,
- Management of complications such as hypotension, and Application of organ protective strategies
- Early haemodynamic resuscitation and hence restoration of adequate oxygen supply to peripheral tissues is a key goal of therapy.
- antibiotics should be administered i.v. and at high dosage.
- Urgent microbiological advice should be sought
- Broad-spectrum antibiotics should be given as first-line therapy.
- The source of sepsis should be identified as a priority.
- Swinging pyrexia should arouse suspicion of an abscess or collection, and further imaging,
- And/Or return to theatre for evacuation of products, wound exploration, or laparotomy may be necessary

7. Category 1 Caesarean section

- The classification of the urgency of Caesarean section, recognized by both the Royal College of Anaesthetists and Royal College of Obstetricians and Gynaecologists, is based upon the presence or absence of maternal or fetal compromise.
- Category 1 Caesarean section (the most urgent category) is defined as immediate threat to life of either the woman or the fetus.
- positioning the mother in the recumbent left lateral position,
- administering maternal oxygen at a high inspired percentage, and
- rapid infusion of non-glucose-based crystalloids., oxytocin infusions should be stopped or contractions inhibited, for example, by administering terbutaline 250 mg subcutaneously.
- These measures alone may result in improvement of the CTG, and downgrading of the Caesarean section from Category 1 to Category 2 (no • immediate threat to life

of the woman or fetus).

- Choice of anaesthetic technique
 - General anaesthesia is considered to be faster than regional anaesthesia.
 - Associated with increased maternal morbidity and mortality.
 - spinal anaesthesia for Category 1 Caesarean section—so-called ‘rapid sequence spinal anaesthesia’.
- Principles of this approach include using a ‘no- touch’ technique and using sterile gloves only, utilizing other staff members to perform i.v. cannulation, limiting the number of attempts to one, and preparing the patient for general anaesthesia during attempted spinal insertion.

VALUE ADDED COURSES

LABOUR WARD DRILLS

List of Students Enrolled January 2019 – June 2019

S.No	Register No	Students List	signature
1	U16MB311	KAVITHA .M	Kavitha .
2	U16MB312	KAVIYA .K	Kavya
3	U16MB313	KEERTHANA .K	Keerthana
4	U16MB314	KEERTHI K DAS	Keerthi
5	U16MB315	KUNCHAL BALA VENKATA RAMANA REDDY	Kunchal. Balu .
6	U16MB316	LAKSHMIPURAM VEDA SREEVIDYA	Lakshmi
7	U16MB317	LOGESH BABU J.S	J. Logesh .
8	U16MB318	LOKESHWARAN .M	Lokeshwaran
9	U16MB319	MADHUMITHA .R	Madhumitha
10	U16MB320	MADHUMITHA .S	Madhu
11	U16MB321	MANIMAARANE .R	Mani
12	U16MB322	MATHIVAANANE .R	Mathivanan
13	U16MB323	MATHIVANAN .J	Mathivanan
14	U16MB324	MD ALTAJ KHAN	A Altaf Khan .
15	U16MB325	MEKALA CHARAN CHOWDARY	Mekala
16	U16MB326	MERLIN.S	Merlin .
17	U16MB327	MERLINE SHEEBA .B	Merline
18	U16MB328	MOHAN .B	Mohan .
19	U16MB329	MOHIT BHARDWAJ	Mohit Bhardwaj
20	U16MB330	MONISH PALEI PATRA	Monish Palei

Patra

LABOUR WARD DRILLS

MULTIPLE CHOICE QUESTIONS

1 Which of the following is true statement regarding elliptical incisions ?

- a) Two times as long as it is wide
- b) Five times as long as it is wide
- c) Four times as long as it is wide
- d) Three times as long as it is wide

2 Consider following statements regarding abdominal incisions :

- 1. Transverse incisions tend to be associated with fewer respiratory complications
- 2. Transverse incisions tend to be associated with better cosmetic outcome
- 3. Midline incisions tend to be associated with fewer respiratory complications
- 4. Midline incisions tend to be associated with better cosmetic outcome

3 Identify true statements from the following ?

- a) Both 1 and 3 are true
- b) Both 1 and 2 are true
- c) Both 2 and 4 are true
- d) Both 3 and 4 are true

4 For abdominal wall closure, what should be the ration of the length of the suture material to the length of the wound to be closed?

- a) 3:1
- b) 4:1
- c) 2:1
- d) 5:1

5 Skin grafting is a form of:

- a) Primary Intention Healing

- b) Secondary Intention Healing
- c) Tertiary Intention Healing
- d) Quaternary Intention Healing

6 In Vascular anastomosis the suture material used should be all except:

- a) Non Absorbable
- b) Elastic
- c) Non Elastic
- d) Monofilament

7 In Biliary anastomoses, the suture material should have all properties except:

- a) Absorbable
- b) Does not promote tissue reaction
- c) Should Promote good fibrotic reaction
- d) Does not promote stone formation

8 The diameter of 0 silk in mm is:

- A) 0.500–0.599 B) 0.400–0.499 C) 0.350–0.399 D) 0.300–0.349

9 Which of the following statement is false about bowel anastomosis?

A Seromuscular technique is currently the most widely accepted technique of bowel anastomosis

B Extramucosal technique is currently the most widely accepted technique of bowel anastomosis

C Submucosa has a high collagen content

D Submucosa is the most stable suture layer in all sections of the gastrointestinal tract

10 Which of the following is false regarding the absorption of following suture materials:

- a) Chromic is absorbed by Phagocytosis and enzymatic degradation
- b) Polyglactin is absorbed by hydrolysis
- c) Polyglyconate is absorbed by enzymatic degradation
- d) Polydioxanone is absorbed at 180 days

LABOUR WARD DRILLS
MULTIPLE CHOICE QUESTIONS

10

8/10

REG NO -
U16MB323

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- a) Primary Intention Healing



Sri Lakshmi Narayana Institute of Medical Sciences

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(Deemed to be University under section 3 of the UGC Act 1956)



CERTIFICATE OF MERIT

This is to certify that MANIMAARANE has actively participated in the Value Added Course on Labour Ward Drills held during Jan 2019 –JUNE 2019 Organized by Sri Lakshmi Narayana Institute of Medical Sciences, Pondicherry- 605 502, India.

RESOURCE PERSON

ASSOCIATE PROFESSOR
DEPT. OF OBSTETRICS & GYNAECOLOGY
Sri Lakshmi Narayana Institute of
Medical Sciences
OSUDU, PUDUCHERRY.

COORDINATOR

Dr. G. JAYALAKSHMI, BSC., MBB5., DTCO., M.D.,
DEAN
Sri Lakshmi Narayana Institute of Medical Sciences
Osudu, Agaram, Kodopakkam Post,
Villanur Commune, Puducherry- 605502.



Sri Lakshmi Narayana Institute of Medical Sciences

Affiliated to Bharath Institute of Higher Education & Research
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CERTIFICATE OF MERIT

This is to certify that MADHUMITHA .S has actively participated in the Value Added Course on **Labour Ward Drills** held during Jan 2019 –JUNE 2019 Organized by Sri Lakshmi Narayana Institute of Medical Sciences, Pondicherry- 605 502, India.

RESOURCE PERSON

ASSOCIATE PROFESSOR
DEPT. OF OBSTETRICS & GYNAECOLOGY
Sri Lakshmi Narayana Institute of
Medical Sciences
OSUDU, PUDUCHERRY.

COORDINATOR

Dr. G. JAYALAKSHMI, BSC., MBBS., DICO., M.D.,
DEAN
Sri Lakshmi Narayana Institute of Medical Sciences
Osudu, Agaram, Kodappakkam Post,
Villanur Commune, Puducherry- 605502.

Annexure 4

Course/Training Feedback Form

Course:

Date:

Name:

Reg NO.

Department: Obstetrics and Gynaecology

Q 1: Please rate your overall satisfaction with the format of the course:

- a. Excellent b. Very Good c. Satisfactory d. unsatisfactory

Q 2: Please rate course notes:

- a. Excellent b. Very Good c. Satisfactory d. unsatisfactory

Q 3: The lecture sequence was well planned

- a. Excellent b. Very Good c. Satisfactory d. unsatisfactory

Q 4: The lectures were clear and easy to understand

- a. Excellent b. Very Good c. Satisfactory d. unsatisfactory

Q 5: Please rate the quality of pre-course administration and information:

- a. Excellent b. Very Good c. Satisfactory d. unsatisfactory

Q 6: Any other suggestions:

Comments:

Thank you for taking the time to complete this survey, your comments are much appreciated.

OPTIONAL Section: Name _____

Signature _____ Date _____

Annexure 4

Course/Training Feedback Form

Course: **LABOUR WARD DRILLS**
Date: **25/08/2019**
Name: **MERLIN, S**
Reg NO. **U16MB326**
Department: **Obstetrics and Gynaecology**

Q 1: Please rate your overall satisfaction with the format of the course:

☒ a. Excellent b. Very Good c. Satisfactory d. unsatisfactory

Q 2: Please rate course notes:

☒ a. Excellent b. Very Good c. Satisfactory d. unsatisfactory

Q 3: The lecture sequence was well planned

☒ a. Excellent b. Very Good c. Satisfactory d. unsatisfactory

Q 4: The lectures were clear and easy to understand

☒ a. Excellent b. Very Good c. Satisfactory d. unsatisfactory

Q 5: Please rate the quality of pre-course administration and information:

☒ a. Excellent b. Very Good c. Satisfactory d. unsatisfactory

Q 6: Any other suggestions: **NILL**

Comments:

Thank you for taking the time to complete this survey, your comments are much appreciated.

OPTIONAL Section: Name _____

Signature _____ Date _____

Annexure 4

Course/Training Feedback Form

Course: LABOUR WARD DRILLS
Date: 27/01/2020
Name: KAVIYA, K
Reg NO. UI6MB312
Department: Obstetrics and Gynaecology

Q 1: Please rate your overall satisfaction with the format of the course:

☒ a. Excellent b. Very Good c. Satisfactory d. unsatisfactory

Q 2: Please rate course notes:

☒ a. Excellent b. Very Good c. Satisfactory d. unsatisfactory

Q 3: The lecture sequence was well planned

☒ a. Excellent b. Very Good c. Satisfactory d. unsatisfactory

Q 4: The lectures were clear and easy to understand

☒ a. Excellent b. Very Good c. Satisfactory d. unsatisfactory

Q 5: Please rate the quality of pre-course administration and information:

☒ a. Excellent b. Very Good c. Satisfactory d. unsatisfactory

Q 6: Any other suggestions: Nil

Comments:

Thank you for taking the time to complete this survey, your comments are much appreciated.

OPTIONAL Section: Name _____

Signature _____ Date _____

Date: 24..06.2019

From

Dr. K.DURGA
Assistant Professor,
Obstetrics and Gynaecology,
Sri Lakshmi Narayana institute of Medical sciences,
Bharath Institute of Higher Education and Research,
Chennai.

Through Proper Channel

To

The Dean,
Sri Lakshmi Narayana institute of Medical Sciences,
Bharath Institute of Higher Education and Research,
Chennai.

Sub: Completion of value-added course: Labour Ward Drills

Dear Sir,

With reference to the subject mentioned above, the department has conducted the value-added course titled: **Labour Ward Drills** on JAN 2019- JUN2019. We solicit your kind action to send certificates for the participants, that is attached with this letter. Also, I am attaching the photographs captured during the conduct of the course.

Kind Regards

Dr.DURGA



ASSOCIATE PROFESSOR
DEPT OF OBSTETRICS & GYNAECOLOGY
Sri Lakshmi Narayana Institute of
Medical Sciences
OSUDU, PUDUCHERRY.

VALUE ADDED COURSES

OBGY 10 LABOUR WARD DRILLS

