

**Course Name :An Overview on Maternal Health Antenatal, Intranatal and Postnatal Care**

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**Week:01**

**Lecture:01**

## **Overview of Obstetrics**

Good morning students. Hello everyone. I welcome you to the NPTEL online certified courses on the topic, an overview on maternal health, the antenatal, intranatal and postnatal care. Myself, Dr. Barnali Ghosh, an obstetrician and gynecologist working as an assistant professor at B.C. Roy Medical College and Medical Research Center, IIT Kharagpur. Today, our topic of discussion is on the overview of obstetrics.

In this 12 weeks of course, I will be discussing with you regarding the various aspects of maternal health, which primarily deals with the health of a woman during the period of pregnancy, the period of delivery and the postpartum period following delivery. In this introductory lecture, we will be discussing the various terminologies, you know the basic definitions and clear cut understanding regarding the basic terminologies used in obstetrics. You need to have a very clear idea regarding these terms because they will be used again and again in the subsequent lectures, right. So the concepts covered in today's class will be the definition of gestational age, the calculation of expected date of delivery, a clear idea regarding these two very important terms that is the gravida and the parity, definition of abortion, term, preterm and post term pregnancy.

Key words for today's lecture are as follows, right. Now, coming to the gestational age. Gestational age is synonymous to the period of pregnancy, right, which is also equal to the period of amenorrhea. Now, how to calculate the gestational age? Gestational age is always calculated from the first day of the last menstrual period of the female, right. So, to begin with, say the female has told that she has her LMP.

LMP is nothing but the first day of her last menstrual period. She gives the date and you write it as the LMP. Now, she has bled for three to four days, but we count the first day, right. Then say she comes to you on 28th day, right. So, on the 28th day, she misses her period, right.

So, this is the day of her missed period. She comes to you and tells doctor I have missed my period and then you advise her a UPT, right. So, in a 28 day cycle, it is taken that her day of

ovulation will be on 14th day. 14th day is her day of ovulation, right. And we know that this ovum, you know, can be fertilized by a sperm in the reproductive tract up to 12 to maximum of 24 hours.

So, the day of ovulation, you know, will coincide with the day of fertilization. On that day itself, it will be fertilized by the sperm. And then after again two weeks on her 28th day of the cycle, she misses her period and you go for a urine pregnancy test, UPT card test. And you tell her to give her urine and you see that two lines have come in the card. So, it is UPT positive, right.

And now you say the patient that yes, you are pregnant. How many weeks pregnant? Now, she is four weeks pregnant. Very important. On the day of her missed period, when the UPT comes as positive, if she asks you doctor I am how many weeks pregnant, then you say that yes, you are four weeks pregnant. Starting calculation from the first day of her last menstrual period, right.

To be more precise, the fetal age, fetal age is actually starting from the day of fertilization when the zygote has been formed. This is the fetal age. Now, the fetal age will be only two weeks, right. So, but we say that she is four weeks pregnant, that is her gestational age is four weeks as we calculate it from her LMP. You need to know, you need to have this idea clear because say a female has her LMP on 1st of January, right.

She had her menses. Now, she got married on 12th of January and on 28th day of January, she was expecting her next menses. She misses it. She comes to you and you advise her to take a urine pregnancy test which comes out to be positive and you tell yes, you are pregnant. Now, when asked, you tell that she is four weeks pregnant.

So, her in-laws will be no more very anxious because she is married on 12th of January which is only 16 days of her marriage. But she is four weeks pregnant, how can that be? Yes, because the fertilization has been only two weeks prior, that is 14 days before her missed period. Though the fertilization has occurred 14 days before her missed period, but still we call her four weeks pregnant, right. So, this is the calculation of the gestational age. Now, the gestational age is calculated up to 40 weeks, right.

So, say this is the 40 weeks. This is her expected date of delivery. It is calculated up to 40 weeks starting from the LMP, right. Now, we divide this whole period of pregnancy into three trimesters. How? First trimester is up to 12 weeks.

This is the first trimester. First trimester is from first week to 12 weeks. From up to 28 weeks, this is the second trimester, right. Second trimester is from 13 to 28 weeks and the rest beyond 28 weeks is the third trimester, right. So, there are three trimesters in a pregnancy period, first,

second and third, right.

So, this was a, you know, older concept which was, you know, used for longer period of time, but recently in the recent edition of Williams, there has been a very, you know, minute change in this, you know, duration of this trimester. First trimester now we call it from 12, a one first week to 12 weeks and 6 by 7 days, right. Sorry, 13 weeks. Now, it is up to 13 weeks. So, 13 weeks and 6 by 7 days, it is the first trimester.

One week has been taken inside the first trimester. So, this is the first trimester and from 14 weeks, from 14 weeks to 27 6 by 7 days, 27 weeks and 6 days, this is the second trimester. And third trimester is 28 weeks onwards, right. So, this is the third trimester. This is, you know, recent definition, but in majority of books, we find it as 1 to 12 weeks is the first trimester, then from 13 to 28 weeks is the second trimester and following that from 28 weeks is the third trimester, right.

So, these are the different definitions of the gestational age and the trimester wise change. Now, coming to, you know, follicular phase and luteal phase, I have already discussed follicular phase and luteal phase. This is the day of ovulation. So, in a menstrual cycle, every female has a follicular phase, which is the first part. This is the follicular phase.

This phase of follicular recruitment from the follicle pool in the ovary and then gradual development of the follicles up to the development of the mature graphian follicle is the follicular phase and this follicular phase is variable. This is under the influence of FSH and it is variable. It changes from one female to another. Whereas, the luteal phase, this is the luteal phase starting from the day of ovulation, following the day of ovulation and this luteal phase is constant, which is equal to 2 weeks or 14 days. This luteal phase is constant for every female and it is 14 days duration, right.

So, this is about the gestational age calculation. Now, coming to, so this is what I have already discussed gestational age, first trimester, second trimester and third trimester. Now, gradually we pass through the, you know, duration of pregnancy and you know, in the first trimester, there is mostly organogenesis of the fetus and different hormonal changes occurring within the mother's body. In second trimester, the mother gets accustomed to these changes and thus in from second trimester, there will be growth of the fetus and maximum weight gain will be in the third trimester, right. And the delivery of the fetus following the third trimester at the end of pregnancy, which is 40 weeks taken, this is the expected date of delivery, right.

So, calculation of the expected date of delivery, how to calculate from her LMP. Actually, the expected date of delivery is calculated from her LMP. So, this was her LMP or first day of her last menstrual period and say the 40 weeks is here, right. So, this is her 28th day, when she

misses her period, she comes to you or to the clinic and she has UPT positive. So, she is now pregnant and then she crosses, you know, the whole the length up to 40 weeks.

So, this is her EDD. EDD is nothing but LMP plus 40 weeks, 40 weeks or it can be called as 7 days plus 9 calendar months forward, right. So, this is Naegle's formula. It is a very well-known formula and how to calculate the expected date of delivery. It is from the LMP, we add 7 days and then we go forward by 9 calendar months. So, say she tells that her LMP is on 20th February, right.

Now, you add 7 days, add 7 days, so it will be 27th of February plus 9 calendar months. So, now, it comes to February, March, April, May, June, July, August, September, October and November. So, 9 calendar months forward comes as 27th of November, right. So, her expected date of delivery is on 27th of November. You can also calculate as plus 7 days, plus 7 days and 3 calendar months behind, right.

You can also calculate like this. So, 20 plus 7, we get this 27th February. Now, you go behind by 3 calendar months. How? February, so January, December, November. So, comes to the same date that is 27th of November, which is nothing but 280 days from her LMP or 10 lunar months. Now, say, so this is you know calculation of EDD.

So, we have already discussed this LMP is 7 days plus 9 calendar months forward or 3 calendar months behind or 40 weeks or 280 days or 10 lunar months. Everything you know different ways of saying, but same thing we are telling and it is the calculation of expected date of delivery by the Naégles formula. Now, there is a criteria where to use the Naégles formula. Yes, we need to confirm that the cycle duration of the female is 28 days before her pregnancy, before she conceives, her menstrual cycle previously was of duration of 28 days. It was regular, right and she was not taking any oral contraceptive pill and she is not in the period of lactational amenorrhea.

Why so? Because in case of taking an oral contraceptive pill, we cannot very particularly or precisely say the day of her ovulation and thereby we cannot precisely determine the day of her fertilization. So, in case she is taking OCP, then calculated EDD by Naégles rule will be you know will be false, right. That will not be accurate. And if she is in the period of lactational amenorrhea, then we will have no LMP. She is in the period of amenorrhea, she does not know her LMP and thus we cannot calculate the EDD.

In all these cases, if say her duration is not 28 days and it is not regular, right and she is taking oral contraceptive pills or is in lactational amenorrhea, in such cases, USG is the sole you know criteria for the calculation of EDD. EDD is calculated from USG by crown rum length and gestational sac diameter. These two parameters we search in the first trimester of pregnancy, we

go for ultrasound and we search for the crown rum length of the fetus or the gestational sac diameter and from these two parameters, we can also calculate the EDD, right. That will be more accurate, ok. So, now coming to say she tells, she comes and tells you doctor I have regular cycles, but my cycles are not exactly of 28 days.

The cycle can be variable, the cycle length can be variable and it is normal to have you know cycle length duration between 24 to 35 days, right. So, some females can be having a cycle of 24 days, some can be having a cycle length of 35 days, both are normal, right, but they are regular. So, in that case how to calculate the EDD, right. So, we have already discussed that from the Naegle's rule, if you know she was having a 28 day cycle, regular cycle length of 28 day, then the EDD is at 40 weeks or 7 days plus 9 calendar months.

I will write in short 9 calendar months. So, this was her EDD. Now, say she is having the cycle length is less. So, in case of 28 day cycle, the ovulation took place on the 14th day. This was her day of ovulation and the day of ovulation is corresponding to the day of fertilization.

So, this was in case of 28 day cycle. Now, say her cycle is 35 days. So, this is the 35th day. Now, when will be her ovulation in a case of 35 day cycle? We know the luteal phase is constant. So, this phase, this phase is constant, this is 14 days, this luteal phase is constant.

So, here also it will be 14 days. This is constant. So, 14 days before her missed period was her ovulation which is the day of her fertilization, right. Now, so, fertilization took place some days later because her ovulation was some days later, right. So, in other words, we can say that the for this female is having her follicular phase of longer duration. This follicular phase, this is the follicular phase before ovulation, this is longer duration in case of second female.

Now, so, in this case where will be her EDD? So, as this time what is this delay? So, 35 minus if you calculate the EDD, EDD will be a little late. EDD her EDD will not be on this date, it will be a little late and how many days late? It will be 35 minus 28 days that is 7 days. So, what you get from the Naegle's rule, you have to add plus 7 days to that date to get the corrected EDD, right. Is it clear? Say if her cycle length is less than 28 days, say it is somewhere 24 days.

Now, her ovulation was 2 weeks prior to that. So, her ovulation will be this is constant, this is 2 weeks. So, her ovulation was some days prior. So, fertilization also took place some days prior. So, EDD will also come some days prior. How many days prior? How many days prior? That is equal to 28 minus 24 is equal to 4 days.

So, EDD will be 4 days prior. Corrected EDD will be you know the date which we have calculated from the Naegle's formula minus 4 days, right. So, this way we can calculate the corrected EDD in case the cycle duration is you know not exactly 28 days. Now, in some cases

as in IUI, now we have you know there is more infertility, we go for artificial methods of reproduction and sometimes we go for IUI intrauterine insemination. So, she comes and she tells that I have conceived following intrauterine insemination which was done on say you know 10th of March. Now, how to calculate the EDD from her IUI? IUI is nothing but you know giving sperms in the maternal genital tract.

So, that day of IUI will be the day of her fertilization, right. So, that will be the day of her fertilization and you know so, this is the day. This is the day of her IUI. This is the day of her IUI. So, in that case how to calculate the EDD? Now, EDD will be not 280 days, it was actually 280 days from LMP, from IUI, from the day of IUI it will be.

So, this is 14 days, this is 28 day cycle. So, first is 14 days. So, we need to subtract. So, we need to subtract this is 14 days. So, we get this date.

So, we need to subtract 14 days from this 280 days. So, 280 minus 14 is equal to 266. So, 10th March plus 266 days that date will give you the EDD. So, you can calculate the EDD from IUI. In case of IVF pregnancy, in vitro fertilization where we transfer embryo say it is a day 3 embryo transfer or day 5 embryo transfer.

Day 5 embryo transfer is most commonly done. So, now, what happens say this is 1, 2, 3, 4, 5. Now, this is the day of her embryo transfer. I think you are getting my point. So, now, she comes to you and says that my day 5 embryo transfer was on this date when is my EDD. So, it will be more delay the EDD will be you know calculated from the embryo transfer which is 5 days after the day of fertilization. So, how to calculate 266 minus 5. So, it is 261 days. So, we add 261 days to the day of embryo transfer that will be her EDD right. So, all these concepts are based on the day of ovulation, day of fertilization and actually the expected date of delivery being calculated from the LMP or first day of her last menstrual period which is the basis for Naegle's rule right. So, these was regarding the gestational age calculation and expected date of delivery calculation. Trimesters of antenatal period we have already discussed yes the first trimester, then the second trimester and the third trimester right and this is the delivery with the baby. Now first trimester is up to 12 weeks, first week to 12 weeks, second trimester is 13 to 28 weeks and third trimester is 29 to 40 weeks right.

So, this is regarding the three trimesters I have already discussed and trimester wise we will read the obstetrics, the investigations required for that first trimester, the changes occurring in the first trimester you know now coming to the investigations in second trimester and after that in the third trimester. So, that will help to summarize this total pregnancy period ok. So, these are the three trimesters.

Now coming to a very important term that is the gravida. What is gravida? Gravida is actually talking when we say that this is a gravid female that means, the female is pregnant right.

She is a gravid female, she is now pregnant minded. So, when a female comes with a pregnancy you say that she is a gravid female. So, currently the female is pregnant and it is defined as to the number of times she has been pregnant including the present pregnancy. So, irrespective of the outcome of the previous pregnancies, irrespective of the outcome of the previous pregnancies you include the present pregnancy and now you calculate the gravida as to the number of times she has become pregnant right. And point to note here is if she has a twin, if she has a triplet you know if she has a multiple pregnancy in the present one or previously in the previous pregnancies then also we count it as one pregnancy because twin, triplet they are all the product of a single pregnancy event right.

So, two terminologies prime gravida and multigravida. Gravida 1 is prime gravida right gravida 2, 3, 4 and onwards these are all multigravida. What does that mean? Gravida 1 means yes she is pregnant at present and she is first time pregnant. She did not have any past pregnancies, any previous pregnancies, she has become pregnant for the first time now. So, she is a prime gravida. Multigravida yes G2 meaning that she is pregnant and she is second time pregnant and that means, she had one previous pregnancy.

So, she is a case of multigravida. Gravida 3 meaning that yes she is pregnant, but she had two previous pregnancies prior to this pregnancy right. So, all these are you know under the heading of multigravida. So, that is regarding gravida. Now, coming to another important term which is parity. What is parity? Parity is the number of previous pregnancies minded previous not the present pregnancy.

It is the number of the previous pregnancies that have crossed the period of viability right. So, the she had previous pregnancies and you know necessarily it should cross the period of viability, then it will be counted in parity and she they have all got delivered. It excludes the present pregnancy. So, present pregnancy is not taken into account and twins and triplets are considered as one pregnancy right.

So, in case you write like parity 1 gravida 2. What does that mean? She is pregnant now because she is gravida you have written it as G. So, that means, she is now pregnant. She is now second time pregnant and she had one previous pregnancy. In gravida we are not concerned with the outcome of the previous pregnancy, but as I have written here para 1 that means, yes her previous pregnancy there was one previous pregnancy and that has crossed the period of viability. What is the period of viability? It is the gestational age beyond which the fetus is capable of independent existence outside the mother's womb right.

So, in India the period of viability is 28 weeks when the fetal weight is 1000 gram right or 1 kg. If the fetus is delivered at this 28 weeks then our India our country has the NICU facilities,

has the infrastructure to sustain this baby to help you know keep this baby alive. But in developed countries like USA and Canada where they are more developed in the infrastructure and the NICU facilities in their countries the period of viability is less and is 20 to 24 weeks. So, in those countries you know they can even have a 20 weeks or 24 weeks fetus if it gets delivered can be survived right, but in our country the period of viability is 28 weeks. So, while discussing parity in the previous pregnancies when they have crossed the age of viability or they have crossed 28 weeks of gestation then only they will be counted in parity right.

So, this was regarding parity. Now, coming to an example, a 28 year old female visited the antenatal clinic at 30 weeks of ongoing pregnancy. So, she is now pregnant, she is now 30 weeks pregnant right. So, she is a gravida with a history of vaginal delivery 3 years ago resulting in the birth of a male baby. So, there was a spontaneous vaginal delivery 3 years ago resulting in the birth of a male baby which is alive and healthy.

So, now, you need to calculate the gravida and parity. Here you say that yes it is first pregnancy and this is the ongoing second pregnancy. So, gravida is 2 and parity is only 1 because it is one previous pregnancy and it has crossed the age of viability right. So, it is 1 and if you say living issue, living issue yes the baby is alive and healthy.

So, it is 1. Abortion, abortion there is no history of abortion 0. So, G2 para 1 abortion 0 living issue 1 this is the obstetric score of the patient right. Now, next example 26 years old female presented at 35 weeks of pregnancy with a history of cesarean section hold 35 weeks of ongoing pregnancy. So, 35 weeks of gestational age it is the ongoing pregnancy. History of cesarean section 2 years ago due to LSCS right.

So, there was an LSCS 2 years ago delivering a male twin. So, DCDA dichorionic diamniotic twin and twin delivery resulted in a male baby and a female baby 2.1 kgs and 2 kgs right and both of whom are alive and healthy. She has also a history of abortion at 9 weeks of pregnancy approximately 5 years ago. So, this was the first pregnancy and it was resulted in spontaneous abortion at 9 weeks.

So, number 1 pregnancy, second pregnancy and third ongoing pregnancy. Now, coming to gravida. Gravida is yes number of time she has become pregnant. This is her third time. So, this is the parity. Parity is the number of pregnancies that have crossed the period of viability.

Does it cross the period of viability? No, it is 9 weeks period of viability is 28 weeks. Second pregnancy yes it has crossed the period of viability because you know 2.1 that is approximately at term 37 weeks. So, parity 1 though it is a twin pregnancy though there are 2 babies, but still we calculate parity as 1 because it is the product of 1 pregnancy. So, parity 1 leaving issue 2 abortion 1.

So, this is the obstetrical score of this patient right. What is abortion? I am telling the term abortion that means, it is the loss of the fetus before the period of viability which is 28 weeks in our country right. So, in the first trimester loss mostly they are called as miscarriages. Before the period of viability there is loss of the fetus.

Now, coming to the term parturient.

What is parturient? Parturient is nothing, but the woman is in labor. During the process of delivery when she is in labor she is called as a parturient. And what is puerpera? Puerpera is a woman following child birth up till 6 weeks postpartum. 6 weeks or 42 days post delivery is her puerperal period right. Next example, so woman at 37 weeks.

So, she is again pregnant now at 37 weeks right and having a history of spontaneous abortion. Spontaneous abortion at 8 weeks followed by spontaneous vaginal delivery at term. So, next is spontaneous vaginal delivery resulting in a male baby of 3 kgs birth weight and that is alive and healthy. 3 kg birth weight that is term delivery and it is alive and healthy right. Then the second twin vaginal delivery again she had a vaginal delivery and in this case it was twin. So, at 30 weeks 30 weeks there was a twin delivery delivering a male and a female baby and both of whom are alive.

And this is so now you write this is the first pregnancy, this is the second pregnancy, this is the third pregnancy and this is the fourth pregnancy. So, what is the gravida? Gravida is number of pregnancies, no number of pregnancy, number of time she has become pregnant that is number 4 irrespective of the outcome of previous pregnancies. Now, parity, parity is number of previous pregnancies which has crossed the period of viability, this has crossed the period of viability, this has also crossed the period of viability though it is twin we will calculate as 1.

So, parity is 2. Now, coming to the living issue, what is the living issue? It is 3. Though she has been twice pregnant, but she has 3 living children that means, one is twin pregnancy or from this only this formula without the history you know you can deduce that yes maybe that she had one triplet and the other pregnancy the baby has died or one pregnancy one child from the one pregnancy and the second pregnancy it is twin right and abortion is 1. So, this is the obstetrical score. Now, by this score scoring system we write it for every patient and looking at this scoring system you get the idea that how many time she is pregnant, how many deliveries she has undergone, how many living children she has at home, how many times she had abortion right all these data all this information you get from this single line right. Now, coming to term preterm and post term, what is term 40 weeks I have already told this is the EDD and this is term right.

So, 39, 38, 37. So, before this 37, before this 37 is preterm, before 37 weeks is preterm and

post term what is post term? So, now, you calculate this is 41 and 42 right. So, post term is 2 weeks after the EDD. So, post term is 42 weeks onwards 42 weeks plus right 42 weeks onwards and preterm is less than 37 weeks and term is 37 to 42 weeks, 40 weeks is the EDD right. So, this is how we divide as preterm pregnancy or preterm delivery term pregnancy and post term pregnancy. This we have already discussed this is also the obstetrical score where you see that it is you know gravida then parity say gravida 4 parity 1 plus 1 plus 1 plus say 2.

What does that mean? Yes, G meaning gravida. So, she is 4 times pregnant. Now, this one there are 4 numbers right say first I this is 3. So, first I will give you 3 numbers right first I will give you 3 numbers. So, what from if it is written like this what will you deduce? So, this is her number of the parity or from this number of times she has become pregnant previously and it has crossed the age of viability. So, she had one previous pregnancy which has crossed 28 weeks.

Then the second number is denoting the number of time she has undergone abortion. So, she had one previous abortion and next number is number of living children. So, she has one living children now. So, she has one pregnancy that crossed the viability, she had one pregnancy that had been aborted. So, number of and now she is again pregnant.

So, number of times she her gravida will be if she is now pregnant that will be G 3. Next if it is written like this that was what I was showing you P 4 letters what you deduce from it 4 letters are given. So, this is gravida 4 times she has become pregnant. Now, this first will be the term pregnancy term meaning 37 weeks and beyond. So, she this pregnancy she had at least one pregnancy which has crossed the 37 weeks. She had another pregnancy which had a preterm delivery it was delivered before 37 weeks she had 35 weeks she got delivered.

So, there was one incidence like that. Next number is the number of times there was abortion. She has also one abortion history and these two term and preterm both these two children are living. So, the living issue is 2. So, from this you get this you know information right only 2 numbers written G 2 para 1 that is gravida and parity. If 3 numbers are written say G 3 para 1 plus 1 right these are all short forms written in obs patients and from this you know criteria from this score you need to understand what it is telling. She is 3 times pregnant and she is now pregnant gravida 3 parity 1 she had one pregnancy that crossed the period of viability and she had also one abortion in the previous years right.

So, that is what we deduce from this formula. So, this is another example antenatal mother 30 weeks of gestation. She is 30 weeks now and comes to the clinic for checkup she gives history of previous two abortion at 8 weeks. So, there was an abortion at 8 weeks another abortion at 7 weeks following which she delivered a term male live baby at 38 weeks. So, she delivered a term male live baby at 38 weeks, but she lost her lost the baby in an accident right and then she

had a cesarean section right for twin pregnancy.

Now that is a twin pregnancy at 36 weeks delivering two female child. So, both are female right. So, that was a twin pregnancy both are female and both are alive. So, now what to deduce? So, she was first time pregnant, second time pregnancy outcome, this is the third pregnancy outcome, fourth pregnancy outcome and now she is 5 times pregnant that is 30 weeks of ongoing 30 weeks of pregnancy. So, gravida will be 5. According to parity parity yes number 4 this has a twin pregnancy both delivered at cesarean section at 36 weeks.

So, it is across the period of viability though it is twin we will calculate as 1. Then third pregnancy outcome was yes at 38 weeks. So, it will also be counted in parity. So, para will be 2 right. Abortion history was first and second was abortion history because it has not crossed the age of viability. So, abortion will be 2 and now coming to the living issue she lost one baby in the third pregnancy she had delivered it vaginally, but she lost him in an accident, but following that the cesarean section for the twin baby twin female they are both alive.

So, living issue will be 2 that is the product of a single pregnancy that living issue 2 is a product of single twin pregnancy and it they are alive. So, this is the obstetric score of this patient right. I think it is clear now and next coming to the PROM and PPRM these two terminologies are very also important what is PROM and PPRM? PROM is nothing, but pre labor rupture of membranes right. So, you know during labor rupture of membranes normally occurs during labor. Say what is true labor? Onset of labor is by the onset of true labor pain right and this labor is also divided into 4 stages.

Stage 1 from the onset of true labor pain to the full cervical dilatation writing in short right. So, this is stage 1. Then from full cervical dilatation to the birth of baby this is stage 2 of labor right and after birth of baby till the delivery of the placenta this is delivery of placenta is stage 3 of labor and 1 hour following the delivery of placenta this is stage 4. Normally rupture of membrane should occur in this period, but in case the rupture of membranes occur before the onset of labor before the first stage of labor this is called as PROM and when this occurs this PROM if occurs in a woman in a woman before 37 weeks of gestation. PROM occurring in a woman before 37 weeks that is called as preterm PROM. Pre labor rupture of membrane or premature rupture of membrane is PROM and preterm pre labor rupture of membrane is PPROM right.

Now coming to the post term and post dated pregnancy. Post term I have already told what is post term pregnancy? Yes, term is at 40 weeks and you know up 41 42. So, this is the EDD 40 weeks is the EDD to note here that only 4 percent of women will be delivering on their date of EDD. Rest will be delivering either before EDD or after EDD. If the pregnancy goes beyond 42 weeks that is 2 weeks post EDD that is more than 42 weeks or more than 294 days from her

LMB then it is a post term pregnancy right.

And what is post dated? Post dated is nothing, but after the EDD. If the patient if the patient if the pregnant female crosses her expected date of delivery. So, this from this day from this day is her post dated pregnancy, but after 42 if it crosses even 42 weeks then it becomes post term pregnancy right. These are all definitions which we will be using you know to define the different pregnancies and remaining you know when you get a post dated we need to know that yes she has crossed her date of expected date of delivery. And so, we need to intervene we need to be very vigilant whether the fetus is normal whether you know we can wait for another you know 1 week or 2 week for the labour to begin right.

Now coming to important one what is short stature in obstetrics? Short stature in obstetrics we take it as height less than 140 centimeter.

If it is if the height of the female is less than 140 centimeter we call that she is a case of short stature. Another important definition is for elderly primie. What is elderly primie? Elderly primie you know if the age of the mother she is primie gravida that means, she is first time pregnant and she has been first time pregnant at an age more than 35 years right. So, more than 35 years is elderly primie whereas, WHO says that if she is more than 30 years right then also we call it as elderly primie. Now there are 2 different definitions as per WHO and SCOG, but we normally into clinical practice we take as 35 years more than 35 years as an elderly primie.

Now coming to grand multipara what is you parity meaning previous birth 4 or more. If the mother has 4 or more previous viable birth right previous viable birth which has crossed the period of viability and now she is you know after 4 or more 5 times pregnant. So, she has 4 previous pregnancies then she is a case of grand multipara and you know whenever such a patient comes a grand multipara you know you need to be you know cautious because she is a case of high risk pregnancy she is more prone to you know certain difficulties in labor, labor dystocia, malpresentation. During the period of labor there may be labor shoulder dystocia, there may be uterine rupture and following delivery there is more chance of you know uterine flabby uterus and uterine atony leading to postpartum hemorrhage. So, these are all you know from this definition you need to you know infer.

Now coming to the birth weight of Indian babies, now coming to the fetus Indian babies average birth weight is 2.8 kgs right. Macrosomia meaning more you know increased fetal birth weight. In India we take the definition of macrosomia as more than 4 kgs which is the expected fetal weight is more than 98th percentile right, but in developed countries as per RCOG or ACOG American committee of obstetrics and gynecology they take 4.5 kgs as macrosomia, but in our country it is more than 4 kgs.

Now coming to low birth weight, what is low birth weight? 2.4 Indian babies it is 2.8 kgs, low

birth weight is when it is less than 2.5 kgs, very low birth weight when it is less than 2 kgs and extremely low birth weight is less than 1.5 kgs right. So, the in these cases when there is less birth weight is less due to maybe you know preterm delivery or due to small for gestational age or due to intrauterine growth retardation we need to be very you know from beforehand we need to deliver this patient at a setup with very good NICU facilities.

So, that after the delivery the baby can be taken care of. So, these were in a nutshell regarding the obstetrical overview the definitions of the terminologies and rest we will be continuing in the subsequent sessions right. The references taken are from the DC Datta textbook of obstetrics, the Williams obstetrics and the James book on high risk pregnancy. So, thank you for this patient hearing. I hope to meet you in the next session.