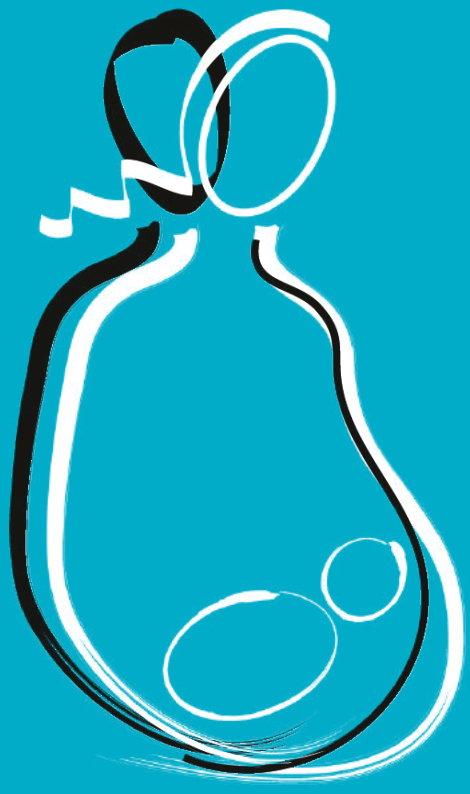
WHO Labour Care Guide

USER'S MANUAL



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WHO labour care guide: user's manual

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Contents

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Acronyms and abbreviations

bpm	beats per minute
CCT	Controlled cord traction
DBP	Diastolic blood pressure
FHR	Fetal heart rate
IM	Intramuscular
IU	International units
IV	Intravenous
LCG	Labour Care Guide
PPH	Postpartum haemorrhage
SBP	Systolic blood pressure
UNICEF	United Nations Children's Fund
UNFPA	United Nations Population Fund
USAID	United States Agency for International Development
WHO	World Health Organization

Introduction

More than one third of maternal deaths, half of stillbirths and a quarter of neonatal deaths result from complications during labour and childbirth *(1,2)*. The majority of these deaths occur in low-resource settings and are largely preventable through timely interventions *(3)*. Monitoring of labour and childbirth, and early identification and treatment of complications are critical for preventing adverse birth outcomes. Improving the quality of care around the time of birth has been identified as the most impactful strategy for reducing stillbirths and maternal and newborn deaths, compared with antenatal or postnatal care strategies *(4)*.

In February 2018, the World Health Organization (WHO) published a consolidated set of recommendations on intrapartum care for a positive childbirth experience *(5)*. The recommendations include new definitions of the duration of the first and second stages of labour and provide guidance on the timing and use of labour interventions to improve the health and well-being of women and their babies *(5–7)*. The recommendations are based on the principle that, through the use of effective labour and childbirth practices and avoidance of ineffective (and potentially harmful) practices, health personnel can support women to achieve their desired physical, emotional and psychological outcomes for themselves, their babies and their families *(8)*.

WHO recommendations on intrapartum care specify evidence-based practices that should be implemented throughout labour and the immediate postnatal periods, and discourage ineffective practices that should be avoided. WHO recommendations cover:

- care throughout labour and birth: respectful maternity care, effective communication, labour companionship, and continuity of care;
- first stage of labour: definition of the latent and active first stages, duration and progression of the first stage, labour ward admission policy, clinical pelvimetry on admission, routine assessment of fetal well-being on labour admission, pubic shaving, enema on admission, digital vaginal examination, vaginal cleansing, continuous cardiotocography, intermittent fetal heart rate (FHR) auscultation, pain relief, oral fluid and food, maternal mobility and position, active management of labour, routine amniotomy, oxytocin for preventing delay, antispasmodic agents, and intravenous fluids for preventing labour delay;
- second stage of labour: definition and duration of the second stage of labour, birth position (with and without epidural analgesia), methods of pushing, techniques for preventing perineal trauma, episiotomy, and fundal pressure;
- third stage of labour: prophylactic uterotonics, delayed umbilical cord clamping, controlled cord traction, and uterine massage;
- care of the newborn: routine nasal or oral suction during resuscitation, skin-to-skin contact, breastfeeding, haemorrhagic disease prophylaxis using vitamin K, and bathing and other immediate postnatal care of the newborn;
- care of the woman after birth: uterine tonus assessment, use of antibiotics, routine postpartum maternal assessment, and discharge following uncomplicated vaginal birth.

To facilitate effective implementation of the above recommendations, WHO reviewed and revised the design of the previous partograph. The LCG was designed for health personnel to monitor the well-being of women and babies during labour through regular assessments to identify any deviation from normality. The tool aims to stimulate shared decision-making by health-care providers and women, and to promote women-centred care. The LCG is intended as a resource to ensure quality evidence-based care, with a special emphasis on ensuring safety, avoiding unnecessary interventions, and providing supportive care.

Objective of this manual

This manual has been developed to help health personnel who care for women during labour and childbirth to successfully use the LCG.

Target audience

The primary target audience for this manual is skilled health personnel directly providing labour and childbirth care in all settings. This includes midwives, nurses, general medical practitioners and obstetricians. The manual will also be of interest to staff involved in training health care personnel, health-care facility managers, implementers and managers of maternal and child health programmes, nongovernmental organizations (NGOs), and professional societies involved in the planning and management of maternal and child health services.

The Labour Care Guide

The principal aims of the LCG are to:

- guide the monitoring and documentation of the well-being of women and babies and the progress of labour
- guide skilled health personnel to offer supportive care throughout labour to ensure a positive childbirth experience for women
- assist skilled health personnel to promptly identify and address emerging labour complications, by providing reference thresholds for labour observations that are intended to trigger reflection and specific action(s) if an abnormal observation is identified
- prevent unnecessary use of interventions in labour
- support audit and quality improvement of labour management.

For whom should the LCG be used?

The LCG has been designed for the care of women and their babies during labour and childbirth. It includes assessments and observations that are essential for the care of all pregnant women, regardless of their risk status. However, the LCG was primarily designed to be used for the care of apparently healthy pregnant women and their babies (i.e. women with low-risk pregnancies). Women at high risk of developing labour complications may require additional specialized monitoring and care *(9)*.

Upon arrival in the labour unit, women should have an initial assessment to determine whether labour has started. Detailed guidance on how to perform an initial evaluation to assess the well-being of the woman and her baby and determine the stage of labour can be found in *Pregnancy, childbirth, postpartum and newborn care: a guide for essential practice (10)*. Women in labour will require further monitoring of the progress of labour with the LCG.

When should the LCG be initiated?

Documentation on the LCG of the well-being of the woman and her baby as well as progression of labour should be initiated when the woman enters active phase of the first stage of labour (5 cm or more cervical dilatation), regardless of her parity and membranes status.

Although the LCG should not be initiated in the latent phase of labour, it is expected that women and their babies are monitored and receive labour care and support during the latent stage. Detailed guidance on care for women in the latent phase of labour can be found in *Pregnancy, childbirth, postpartum and newborn care: a guide for essential practice (10)*.

Where should the LCG be used?

The LCG is designed to be used for all births in health facilities, including primary, secondary and tertiary care settings. Women giving birth in lower-level facilities may require referral to a higher level of care if complications ensue. Women in such settings should therefore have access to appropriate referral and transportation options for safe and timely transfer. The use of the LCG can facilitate early identification of potential complications; hence, it should contribute to timely referrals when required.

Summary of key points on starting to use the LCG

For whom should the LCG be used?
All women in labour. High-risk women may require additional monitoring and care.

When should the LCG be initiated?
When women have entered the active phase of the first stage of labour (i.e. cervical dilatation of 5 cm or more).

Where should the LCG be used?
The LCG is designed for use at all levels of care in health facilities.

Structure of the LCG

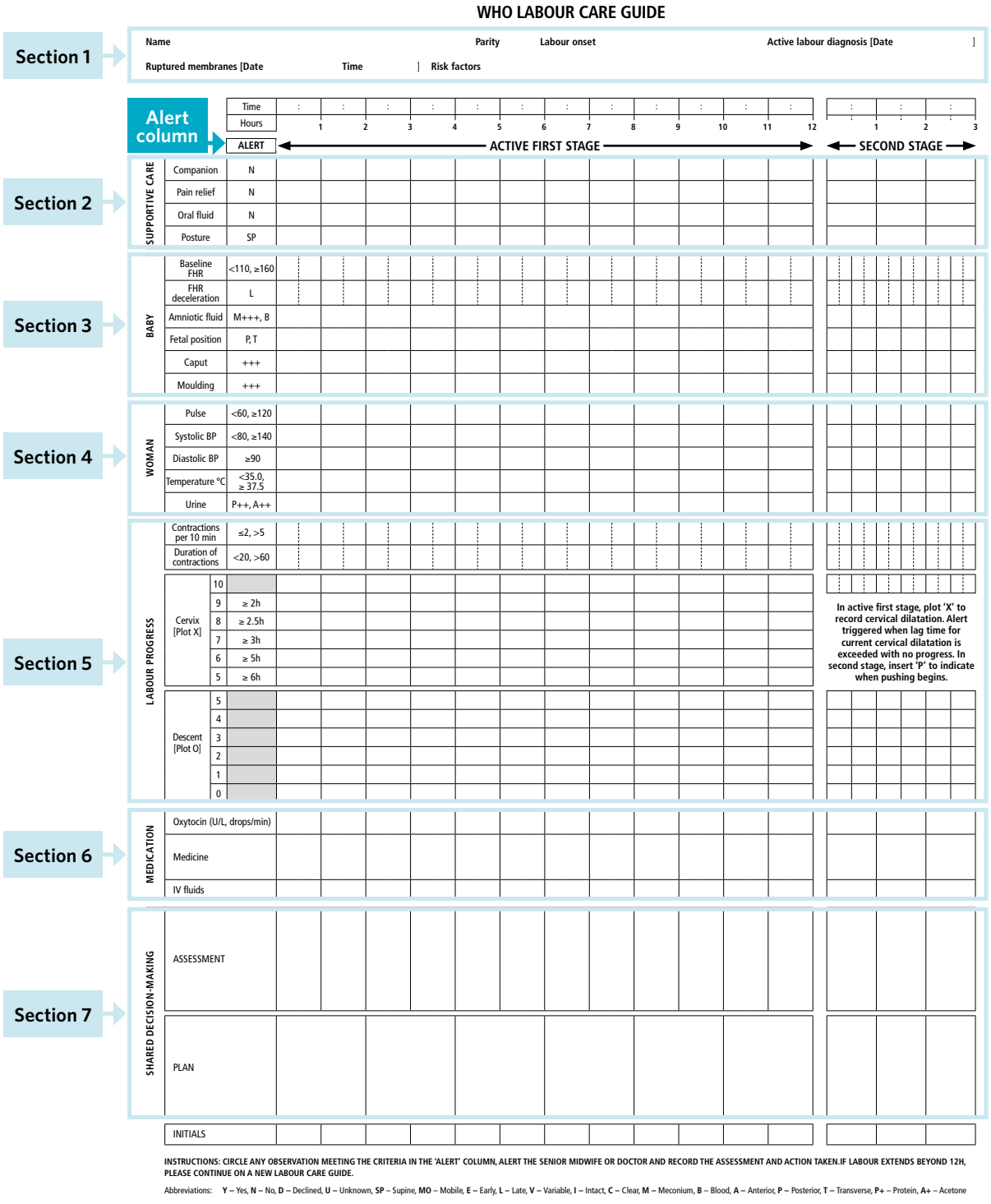
The LCG has seven sections, which were adapted from the previous partograph design. The sections are as follows (see Fig. 1):

1. Identifying information and labour characteristics at admission
2. Supportive care
3. Care of the baby
4. Care of the woman
5. Labour progress
6. Medication
7. Shared decision-making

Section 1 is for documenting the woman's name and labour admission characteristics that are important for labour management: parity, mode of labour onset, date of active labour diagnosis, date and time of rupture of membranes, and risk factors. This section should be completed with the information obtained when active labour diagnosis is confirmed.

Sections 2–7 contain a list of labour observations. The health-care provider should record observations for all sections soon after the woman is admitted to the labour ward. The remainder of the LCG is then completed following subsequent assessments throughout labour. For all observations, there is a horizontal time axis for documentation of the corresponding time of observation and a vertical reference values axis for determination of any deviation from normal observations. The LCG also provides a second-stage section to continue the observations made during the first stage of labour (except for cervical dilatation assessment, which ends at the first stage of labour).

Fig. 1. Sections of the LCG



INSTRUCTIONS: CIRCLE ANY OBSERVATION MEETING THE CRITERIA IN THE 'ALERT' COLUMN, ALERT THE SENIOR MIDWIFE OR DOCTOR AND RECORD THE ASSESSMENT AND ACTION TAKEN.IF LABOUR EXTENDS BEYOND 12H, PLEASE CONTINUE ON A NEW LABOUR CARE GUIDE.

Abbreviations: **Y** – Yes, **N** – No, **D** – Declined, **U** – Unknown, **SP** – Supine, **MO** – Mobile, **E** – Early, **L** – Late, **V** – Variable, **I** – Intact, **C** – Clear, **M** – Meconium, **B** – Blood, **A** – Anterior, **P** – Posterior, **T** – Transverse, **P+** – Protein, **A+** – Acetone

How to use the Labour Care Guide

Labour monitoring to action

Regular assessments of labour events are required to ensure the well-being of women and their babies during labour. The decision to intervene in the course of labour is primarily based on observation of a deviation from expected observations during these assessments.

To facilitate action-oriented labour monitoring, the LCG provides explicit reference values for labour observations and includes a section to document shared decisions to address any deviation from the expected norm. To ensure the systematic and consistent application of the LCG, health providers are encouraged to use the Assess → Record → Check → Plan approach, which involves:

- **Assess** (assess the well-being of woman and her baby, and progress of labour)
- **Record** (document labour observations)
- **Check reference threshold** (compare labour observations with reference values in the "Alert" column)
- **Plan** (decide whether and what interventions are required, in consultation with the woman, and document accordingly).

It is important for health-care providers to prospectively monitor the well-being of women and babies and the progression of labour, and to apply the Assess → Record → Check → Plan process at each assessment throughout labour.

The sections below provide explanations on how to complete the LCG. A clinical example follows each section to illustrate the use of the LCG.

The LCG is intended as a guide and is not a substitute for good clinical judgment with respect to the individual women's circumstances and preferences.

Further guidance on the clinical management of women during labour and childbirth, including management of complications, can be found in *Pregnancy, Childbirth, Postpartum and Newborn Care: A guide for essential practice (10)* and *Managing complications in pregnancy and childbirth: a guide for midwives and doctors (9)*.

For practical reasons this manual describes women's and babies' observations separately. However, decisions should not be based on findings from individual observations, but rather on an overall assessment of the woman and her baby.

Using the LCG

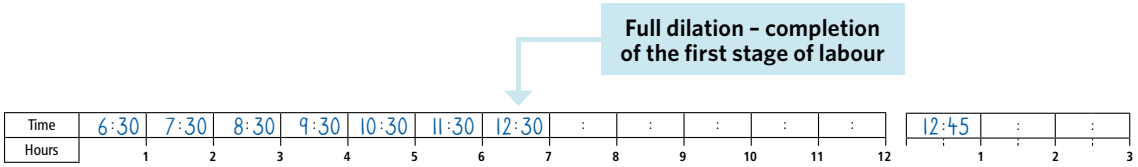
Time axis: The first row of the time axis ("Time") is to register the actual time for each observation, while the second row ("Hours") identifies the number of hours that have elapsed during the course of labour (see Fig. 2). The "Time" row is divided into columns for recording the actual time in hours and minutes. Each column represents 1 clock hour.

As described in the example below, if the first assessment is conducted at 06:30 and the second and third assessments are conducted 1 and 2 hours later, at 07:30 and 08:30, these should all be recorded in the respective columns. If at 12:30 the woman reaches full cervical dilatation, recording of time in the cells under the second stage should continue.

If labour extends beyond 12 hours, a second LCG form should be commenced. Time should be recorded using the 12- or 24-hour format, depending on local practice.

The reference ("Alert") column: The "Alert" column presents thresholds for abnormal labour observations that require further assessment and action by the health-care provider, as summarized in Tables 3–7. If labour observations do not meet any of the criteria in the "Alert" column, labour progression and care should be regarded as normal, and no medical intervention is warranted.

Fig. 2. How to record time on the LCG



Health-care providers should circle any observations meeting the criteria in the "Alert" column. This should help to highlight those observations that require special attention.

While the reference thresholds are largely based on WHO guidance, a few were derived from expert consensus. It is important to note that the reference thresholds are meant to be used as early-warning signals. Therefore, reference values should be adapted in accordance with local guidelines and should not replace the expert clinical judgement of a care provider.

Frequency of assessment: The frequency of observations is similar to that in the previous partograph design, as presented in Tables 4–7. While the frequency of assessment in the LCG is largely based on WHO guidance, for some variables the frequency of monitoring is based on expert consensus rather than high quality evidence. It is important that health personnel adapt the monitoring frequencies to each particular clinical case and in accordance with local guidelines. It is expected that the required frequency of assessment will depend on the results of labour observations and the status of the woman and her baby.

Nomenclature to complete the LCG

Where a measurement is numerical, actual numbers should be recorded. When documenting non-numerical observations – i.e. observations not based on counting – a list of abbreviations is presented to standardize the nomenclature used by health-care teams and to allow consistent interpretation of the "Alert" column (see Table 1).

Table 1. Abbreviations for recording non-numerical observations

Section 1: Identifying information and labour characteristics at admission	
Ruptured membranes (Date; Time)	U = Unknown
Section 2: Supportive care	
Companionship	Y = Yes
	N = No
	D = Woman declines
Pain relief	Y = Yes
	N = No
	D = Woman declines to receive pharmacological or non-pharmacological pain relief
Oral fluid	Y = Yes
	N = No
	D = Woman declines
Posture	SP = Supine
	MO = Mobile

Section 3: Baby	
FHR deceleration	N = No
	E = Early
	L = Late
	V = Variable
Amniotic fluid	I = Intact membranes
	C = Membranes ruptured, clear fluid
	M = Meconium-stained fluid: record +, ++ and +++ to represent non-significant, medium and thick meconium, respectively
	B = Blood-stained fluid
Fetal position	A = Any occiput anterior position
	P = Any occiput posterior position
	T = Any occiput transverse position
Caput	0 (None)
	+
	++
	+++ (Marked)
Moulding	0 (None)
	+ (Sutures apposed)
	++ (Sutures overlapped but reducible)
	+++ (Sutures overlapped and not reducible)
Section 4: Woman	
Urine	P – (No proteinuria)
	P Trace (Trace of proteinuria)
	P 1+
	P 2+
	P 3+
Acetone	A – (No acetonuria)
	A 1+
	A 2+
	A 3+
	A 4+
Section 5: Labour progress	
Not applicable	
Section 6: Medication	
Oxytocin	N = No
	If "Yes", U/L and drops/min
Medication	N = No
	If "Yes", describe medication name, dose and route of administration
IV fluids	Y = Yes
	N = No
Section 7: Shared decision-making	
Not applicable	

How to complete Section 1: Identifying information and labour characteristics at admission

This section captures the woman's name and key information that is needed to understand the baseline characteristics and risk status of the woman at the time of labour admission. Other important demographic and labour characteristics, such as the woman's age, gestational age, serology results, haemoglobin, blood type and Rh factor, referral status and cause, and symphysis–fundal height, should be included in the woman's medical record.

Table 2 shows how to assess the variables in this section and how the information obtained should be recorded on the LCG.

Table 2. Guidance for completing Section 1

Variable	Step 1: Assess	Step 2: Record
Name	Ask the woman her full name.	■ Record the woman's full name and verify that it matches the name on her medical record.
Parity	Extract from medical records the number of times the woman has given birth to a baby after the age of viability (as per local guidelines).	■ Use the local coding system to record parity, e.g. Parity (or P) = number of babies born (after the local definition of viability).
Labour onset	Was onset of labour spontaneous or induced (using any artificial means)?	■ Record "Spontaneous" if the woman achieved active first stage of labour without any artificial stimulation of labour onset (either through pharmacological or non-pharmacological means). ■ Record "Induced" if the onset of labour was artificially stimulated, by administering oxytocin or prostaglandins to the pregnant woman, artificially rupturing the amniotic membranes, applying a balloon catheter into the cervix, or any other means.
Active labour diagnosis	On what date was active first stage of labour diagnosed?	■ Date of active labour diagnosis. Use local format to record dates (e.g. dd/mm/yy, or mm/dd/yy, or dd/mm/yyyy).
Ruptured membranes	On what date and at what time were amniotic membranes ruptured (if membranes have ruptured before admission)?	■ Date and time [hh: mm] that rupture of membranes occurred. These data could be reported by the woman or her companion, or they could be extracted from medical records if membranes ruptured after admission but prior to initiating the LCG. ■ Use local format to record time. ■ Record "U" or "unknown" if rupture of membranes is confirmed and the woman cannot report the date and/or time and there is no documentation in the medical record.
Risk factors	Risk factors	■ Known obstetric, medical and social risk factors with implications for care provision and potential outcome of labour management. For example, pre-existing medical condition (e.g. chronic hypertension), obstetric conditions (e.g. pre-eclampsia), woman's advanced age, adolescent pregnancy, preterm labour, and group B Streptococcus colonization.

Example of how to complete Section 1

Date: June 07, 2020 Time 06:00

Mary Jane, a low-risk pregnant woman, presented with contractions and reports that she has experienced leakage of fluid from the vagina for the last hour. Her gestational age is 38 weeks.

This is her fourth pregnancy. She previously had two births, one of a live baby and one of a stillbirth at term. She also had a miscarriage. She is taking oral iron to treat anaemia.

The midwife in charge of the admission asked all necessary questions and she offers Mary Jane clinical evaluation to assess the baby's well-being and labour stage. Among other parameters, the midwife found that Mary Jane has regular contractions (3 contractions every 10 minutes), 5 cm dilatation and ruptured membranes.

Figure 3 shows how the LCG would be completed with the above information.

Fig. 3. How to complete Section 1

WHO LABOUR CARE GUIDE

Name Mary Jane Williams **Parity** 2 **Labour onset** spontaneous **Active labour diagnosis [Date** 06/07/20]

Ruptured membranes [Date 06/07/20 **Time** 5:00] **Risk factors** History of stillbirth; anaemia

How to complete Section 2: Supportive care

Respectful maternity care is a fundamental human right of pregnant women and is a core component of the WHO intrapartum care recommendations *(5)*. WHO also recommends effective communication between maternity health providers and women in labour, including the use of simple and culturally appropriate language at every stage of labour care. Clear explanations of procedures and their purpose should always be provided to each woman. The findings of physical examinations should be explained to the woman and her companion, and the subsequent course of action made clear to enable shared decision-making.

This section of the LCG aims to encourage the consistent practice of respectful maternity care during labour and childbirth, through the continuous provision and monitoring of supportive care. This includes labour companionship, access to pharmacological and non-pharmacological pain relief, ensuring women are offered oral fluid, and techniques to improve women's comfort (such as encouraging women to be mobile during labour) (see Table 3). Supportive care measures should be offered and evaluated continuously during labour. However, to streamline documentation, observations regarding the provision of supportive care should be recorded every hour.

Table 3. Guidance for completing Section 2 of the LCG

	Step 1: Assess	Step 2: Record	Step 3: Check threshold	Step 4: Plan
Companion	Does the woman have a companion of her choice present and providing support at the time of assessment?	Y = Yes N = No D = Woman declines	Alert: N = No	■ If you recorded "No", offer to find a companion of the woman's choice. ■ If you recorded "Yes" or "Declines", continue to assess her preference during the progress of labour and childbirth.
Pain relief	Has the woman received any form of pain relief?	Y = Yes N = No D = Woman declines to receive pain relief	Alert: N = No	■ If you recorded "No", offer pain relief according to the woman's preferences, availability of pain relief and provider's experience. ■ You can offer an epidural at the lowest effective concentration of local anaesthetic to avoid complications, or opioids such as fentanyl, diamorphine and pethidine. Relaxation techniques such as those using muscle relaxation, breathing, music, mindfulness and manual techniques can also be used, based on the woman's preferences.
Oral fluid	Has the woman taken oral fluid on demand since her last assessment?	Y = Yes N = No D = Woman declines	Alert: N = No	■ If you recorded "No", encourage the woman to take a light diet and drink as she wishes during labour.
Posture	What posture is the woman adopting during labour and childbirth?	SP = Supine MO = Mobile (includes walking, swaying or any non-supine position, e.g. left lateral, squatting, kneeling, standing)	Alert: SP = Supine	■ If you recorded "SP", encourage the woman to walk around freely during the first stage of labour. ■ Support the woman's choice of position (left lateral, squatting, kneeling, standing supported by companion) for each stage of labour.

Example of how to complete Section 2

Date: June 07, 2020 Time 06:00

Mary Jane received a general and clinical assessment, and she has been admitted to the labour ward.

She is monitored by the midwife on duty but she is not accompanied by a relative or someone from her social network.

She reports feeling significant pain due to the uterine contractions, and requests pain relief.

She drank a fruit juice and is walking.

The midwife caring for and monitoring Mary Jane during labour offered her a companion of her choice. Mary Jane wanted to be accompanied by her sister. The midwife gave directions to Mary Jane's sister as to when and how to call for assistance.

Given that another woman was in labour in the same room, the midwife used a divider between beds to provide more privacy.

Mary Jane is with her sister and receiving instructions on relaxation techniques for pain relief.

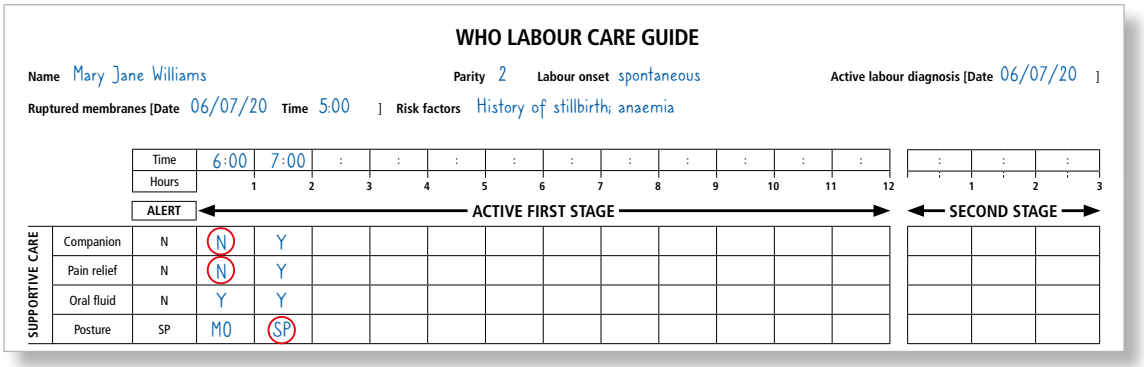
Time 07:00

Mary Jane is with her sister and using relaxation techniques for pain relief.

She has been drinking water when thirsty, and Mary Jane is now lying in bed in a supine position.

Figure 4 shows how the LCG would be completed with the above information. Circled in red are those observations that meet the corresponding criterion in the "Alert" column.

Fig. 4. How to complete Section 2



How to complete Section 3: Care of the baby

This section is to facilitate decision-making while monitoring the well-being of the baby. The well-being of the baby is monitored by regular observation of baseline fetal heart rate (FHR) and decelerations in FHR, and of amniotic fluid, fetal position, moulding of the fetal head, and development of caput succedaneum (diffuse swelling of the scalp) (see Table 4).

Table 4. Guidance for completing Section 3 of the LCG

	Step 1: Assess	Step 2: Record	Step 3: Check threshold	Step 4: Plan
Baseline FHR	Listen to the FHR for a minimum of 1 minute. Auscultate during a uterine contraction and continue for at least 30 seconds after the contraction. Assess the woman's pulse to differentiate between the heartbeat of the woman and that of the baby.	Record the baseline FHR (as a single counted number of beats in 1 minute). For the second stage, record the most clinically significant value within the 15 minute timeframe.	**Alert: <110, ≥160** *Intermittent auscultation of the FHR with either a Doppler ultrasound device or a Pinard fetal stethoscope is recommended for healthy pregnant women in labour (5).* *Very slow FHR in the absence of contractions or persisting after contractions is suggestive of fetal distress. In the absence of a rapid maternal heart rate, a rapid FHR should also be considered a sign of fetal distress (9).*	If FHR is <110 or ≥160, ask the woman to turn on her left side, then alert a senior care provider and follow clinical guidelines. If FHR ranges between 110 and 159, continue to assess FHR every 30 minutes during the first stage and every 5 minutes during the second stage of labour *(10)*.
FHR deceleration	Listen to the FHR for a minimum of 1 minute. Auscultate during a uterine contraction and continue for at least 30 seconds after the contraction.	Record the presence of decelerations using: N = No E = Early L = Late V = Variable	**Alert: L = Late** *Record the presence of decelerations (5).* *Very slow FHR in the absence of contractions or persisting after contractions is suggestive of fetal distress (9).*	If Late decelerations or a single prolonged deceleration are present, ask the woman to turn on her left side, then perform a prolong auscultation, alert a senior care provider and follow clinical guidelines. If No decelerations are present, continue monitoring FHR every 30 minutes during the first stage and every 5 minutes during the second stage *(10)*.
Amniotic fluid	What is the status of membranes? Is there leakage of amniotic fluid? If "Yes", what is the colour of the amniotic fluid?	I = Intact membranes C = Membranes ruptured, clear fluid M = Membranes ruptured, meconium-stained fluid: use +, ++ and +++ to represent non-significant, medium and thick meconium, respectively B = Membranes ruptured, blood-stained fluid	**Alert: M+++ (thick meconium), B = Blood** *Note the status of the membranes. If the membranes have ruptured, note the colour of the draining amniotic fluid. The presence of thick meconium indicates the need for close monitoring and possible intervention for management of fetal distress (9). Bloody amniotic fluid is common in placental abruption, placenta praevia, vasa praevia or uterine rupture (11).*	If blood-stained fluid or thick meconium is present, alert a senior care provider and follow clinical guidelines. If membranes are Intact or ruptured and amniotic fluid is Clear, assess amniotic fluid during the next vaginal examination in 4 hours, unless otherwise indicated.

	Step 1: Assess	Step 2: Record	Step 3: Check threshold	Step 4: Plan
Fetal position	Perform gentle vaginal examination using aseptic technique to assess fetal position, after obtaining the woman's consent and ensuring privacy. Do not start the examination during a contraction. Assess all parameters that require a vaginal examination at the same time.	A = Occiput anterior position P = Occiput posterior position T = Occiput transverse position	**Alert: P = Occiput posterior, T = Occiput transverse** *With descent, the fetal head rotates so that the fetal occiput is anterior in the maternal pelvis. Failure of a fetal occiput transverse or posterior position to rotate to an occiput anterior position should be managed as abnormal fetal position (9).*	If Occiput posterior or Occiput transverse position is detected, alert a senior care provider and follow clinical guidelines. If Occiput anterior position is diagnosed, reassess position during next vaginal examination in 4 hours, unless otherwise indicated.
Caput	When performing vaginal examination to assess other clinical parameters, assess the presence of caput succedaneum (diffuse swelling of the scalp).	Grade caput from 0 (none) to +, ++ or +++ (marked).	**Alert: +++** *Assess caput succedaneum along with other maternal and fetal observations to monitor the well-being of the woman and her baby and identify risks for adverse birth outcomes (5). If the presenting part has large caput succedaneum, this (along with other abnormal observations) could be a sign of obstruction (9).*	If caput = +++, alert a senior provider and follow local protocols. If caput = 0 to ++, repeat the assessment during next vaginal examination in 4 hours, unless otherwise indicated.
Moulding	When performing vaginal examination to assess other clinical parameters, assess the shape of the fetal skull and the degree of overlapping fetal head bones during labour.	Grade from 0 (none) to +++ (marked). Assign: + (sutures apposed), ++ (sutures overlapped but reducible), +++ (sutures overlapped and not reducible).	**Alert: +++** *Assess moulding along with other maternal and fetal observations to monitor the well-being of the woman and her baby and identify risks for adverse birth outcomes (5). Third degree moulding (along with other abnormal observations) could indicate obstructed labour (9).*	If moulding = +++, alert a senior provider and follow local protocols. If moulding = 0 to ++, usually signs of normality (mainly if ++ is developed in the later stages of labour), reassess during next vaginal examination in 4 hours, unless otherwise indicated.

Example of how to complete Section 3

Date: June 07, 2020 Time 06:00

The baby moves during monitoring and shows a heart rate of 140 beats per minute (bpm) without deceleration.

Vaginal examination shows 5 cm cervical dilatation, cephalic presentation. There is no caput or moulding and the fetal position is occiput posterior. Amniotic fluid is clear.

Time 06:30

FHR 136 bpm without decelerations

Time 07:00

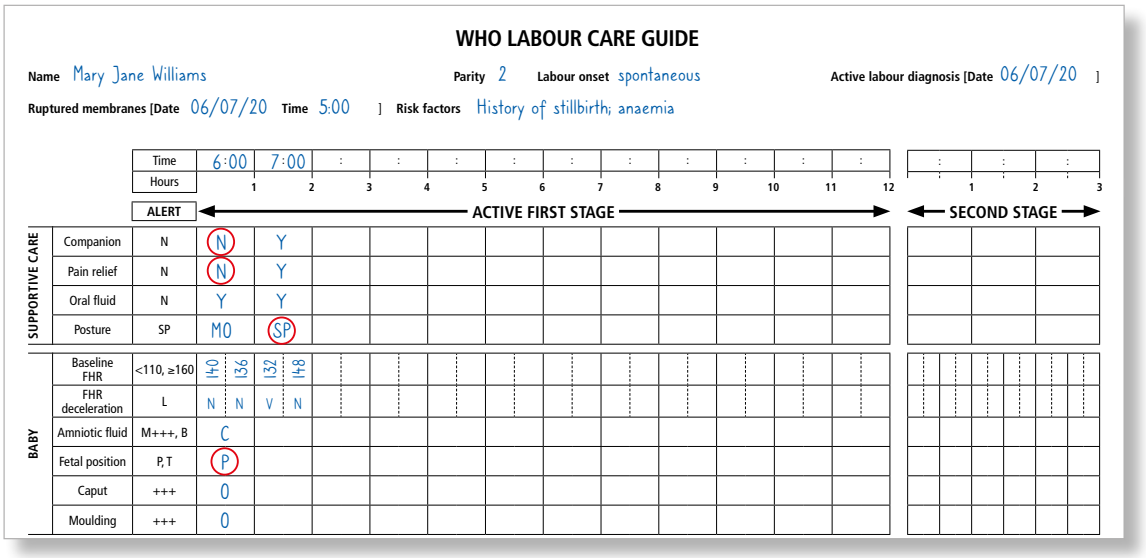
FHR 132 bpm with variable decelerations

Time 07:30

FHR 148 bpm without decelerations. The midwife checks Mary Jane's pad and observes that the amniotic fluid is clear. Given that all other clinical parameters are normal and that Mary Jane is coping well with labour, her midwife continues checking the FHR every 30 minutes and will check the amniotic fluid during the next vaginal examination.

Figure 5 shows how the LCG would be completed with the above information. The observations that meet the criteria in the "Alert" column are circled in red.

Fig. 5. How to complete Section 3



How to complete Section 4: Care of the woman

This section is to facilitate decision-making for consistent, intermittent monitoring of the woman's well-being. The woman's health and well-being are monitored on the LCG by regular observation of the pulse, blood pressure, temperature and urine (see Table 5).

Table 5. Guidance for completing Section 4 of the LCG

	Step 1: Assess	Step 2: Record	Step 3: Check threshold	Step 4: Plan
Pulse	Count woman's pulse rate for at least 1 full minute.	Record woman's pulse (bpm).	**Alert: <60, ≥120** *If the woman's pulse is increasing, she may be dehydrated or in pain, she may be developing a fever, or it could be a sign of bleeding or shock (9). Maternal bradycardia should trigger a series of maternal (and fetal) assessments to identify the probable cause, including use of specific medications, supine position, pain, bleeding or cardiac disease (12).*	■ If pulse <60 or ≥120 bpm, alert a senior care provider and follow local guidelines. ■ If pulse ≥60 or <120 bpm, assess pulse rate every 4 hours.
Systolic BP	Measure blood pressure in sitting position.	Record woman's systolic blood pressure (SBP) in mmHg.	**Alert: <80, ≥140** *Assess blood pressure to monitor the well-being of the woman and identify risks for adverse birth outcomes (5). Low blood pressure could be a sign of haemorrhagic shock, septic shock, occult or frank haemorrhage. Systolic blood pressure of 140 mmHg could be a sign of hypertension (further assessments are required to reach a diagnosis) (10,12).*	■ If SBP <80 or ≥140 alert a senior provider and follow local guidelines. ■ If SBP ≥80 or <140, assess SBP every 4 hours.
Diastolic BP	Measure blood pressure in sitting position.	Record woman's diastolic blood pressure (DBP) in mmHg.	**Alert: ≥90** *Diastolic blood pressure ≥90 could be a sign of hypertension (further assessments are required to reach a diagnosis) (10).*	■ If DBP ≥90, alert a senior care provider and follow local guidelines. ■ If DBP <90, assess DPB every 4 hours.
Temperature	Measure axillary temperature.	Record woman's temperature in degrees Celsius.	**Alert: <35.0, ≥ 37.5** *Temperature should be monitored throughout labour to assess the well-being of the woman and identify risks for adverse birth outcomes (5).*	■ If temperature <35.0 or ≥37.5, alert a senior care provider and follow local guidelines. ■ If temperature is between 35.0 and 37.4 degrees, assess temperature every 4 hours.
Urine	Check protein and acetone in urine with a reagent strip.	Record readings of protein (P) and acetone (A) as Negative, Trace, +, ++, +++, ++++.	**Alert: P++, A++** *A 2+ protein (P++) could guide further management, although confirmation may be done with a second dipstick of 2+ at the next urine void. Proteinuria could be a sign of pre-eclampsia, urinary tract infection, severe anaemia, or previously undiagnosed renal or cardiac disease. Ketonuria could be a sign of dehydration secondary to reduced fluid intake or excessive losses (vomiting or diarrhea), prolonged labour or previously undiagnosed diabetes (13).*	■ If P++, A++ or more, interpret measurements in the context of a full clinical examination. Alert a senior provider and follow local guidelines. ■ If P = Negative, Trace or +, assess every 4 hours or each time the woman voids during labour.

Example of how to complete Section 4

Date: June 07,2020 Time 06:00

Mary Jane's pulse rate is 88 bpm, with blood pressure of 120/80 mmHg. Her temperature is 36.5°C.

She passed urine at admission, without proteinuria or acetone.

Given that all clinical woman parameters are normal, the midwife plans to reassess woman's observations in 4 hours unless otherwise indicated.

Time 10:00

Mary Jane's pulse is 96 bpm, with blood pressure of 128/84 mmHg. Her temperature is 36.9°C. She passed urine again, without proteinuria or acetone.

Figure 6 shows how the LCG would be completed with the gathered information. Circled in red are those observations meeting the criteria in the "Alert" column. For those observations that are evaluated and recorded every 4 hours, leave the cells blank at times where assessment is not required.

Fig. 6. How to complete Section 4

WHO LABOUR CARE GUIDE

Name Mary Jane Williams Parity 2 Labour onset spontaneous Active labour diagnosis [Date 06/07/20]

Ruptured membranes [Date 06/07/20 Time 5:00] Risk factors History of stillbirth; anaemia

	Time		6:00		7:00		8:00		9:00		10:00		:		:		:		:		:	
	Hours		1		2		3		4		5		6		7		8		9		10	
	ALERT		← ACTIVE FIRST STAGE →																			
SUPPORTIVE CARE	Companion	N	(N)		Y		Y		Y		(N)											
	Pain relief	N	(N)		Y		Y		Y		(N)											
	Oral fluid	N	Y		Y		Y		D		Y											
	Posture	SP	MO		(SP)		MO		MO		(SP)											
BABY	Baseline FHR	<110, ≥160	140	136	132	148	133	145	138	128	151	133										
	FHR deceleration	L	N	N	V	N	N	N	N	N	V	N										
	Amniotic fluid	M+++, B	C								+											
	Fetal position	P, T	(P)								(T)											
	Caput	+++	0								+											
	Moulding	+++	0								+											
WOMAN	Pulse	<60, ≥120	88								96											
	Systolic BP	<80, ≥140	120								128											
	Diastolic BP	≥90	80								84											
	Temperature °C	<35.0, ≥ 37.5	36.5								36.9											
	Urine	P++, A++	-/-								-/-											

How to complete Section 5: Labour progress

This section aims to encourage the systematic practice of intermittent monitoring of labour progression parameters. Labour progress is recorded on the LCG by regular observation of the frequency and duration of contractions, cervical dilatation and descent of the baby's head (see Table 6).

Table 6. Guidance for completing Section 5 of the LCG

	Step 1: Assess	Step 2: Record	Step 3: Check threshold	Step 4: Plan
Contractions per 10 min	Count the number of uterine contractions over a 10 minute period.	Record the absolute number of contractions.	**Alert: ≤2, >5** *If contractions are inefficient, suspect inadequate uterine activity (9). Continuous contractions are a sign of obstructed labour (10).*	■ If contractions are ≤2 or >5 per 10 minutes, verify the number of contractions over another 10 minutes. If frequency is confirmed, alert a senior care provider and follow clinical guidelines. ■ If contractions are 3–5 per 10 minutes, assess uterine contractions every 30 minutes during the first stage of labour and at least every 15 minutes during the second stage.
Duration of contractions	Assess the duration of contractions.	Record duration of contraction in seconds.	**Alert: <20, >60** *Short contractions could indicate inadequate uterine activity. More than five contractions in 10 minutes or continuous contractions are signs of obstructed labour or hyperstimulation (9).*	■ If contractions last <20 or >60 seconds, verify the number of contractions over another 10 minutes. If duration is confirmed, alert senior provider and follow local clinical guidelines. ■ If contractions last ≥20 or ≤60 seconds, assess contractions every 30 minutes during the first stage of labour and at least every 15 minutes during the second stage.

	Step 1: Assess	Step 2: Record	Step 3: Check threshold	Step 4: Plan
Cervix	Perform gentle vaginal examination, after obtaining the woman's consent and ensuring privacy. Use aseptic technique to examine the cervix. Do not start the examination during a uterine contraction. Assess all parameters that require a vaginal examination at the same time.	In the active first stage of labour, plot "X" in the cell that matches the time and the cervical dilatation each time you perform a vaginal examination. In the second stage, insert "P" to indicate when pushing begins.	**Alert values for first stage:** **5 cm = ≥6 h** (cervical dilatation remains at 5 cm for 6 or more hours) **6 cm = ≥5 h** (cervical dilatation remains at 6 cm for 5 or more hours) **7 cm = ≥3 h** (cervical dilatation remains at 7 cm for 3 or more hours) **8 cm = ≥2.5 h** (cervical dilatation remains at 8 cm for 2.5 or more hours) **9 cm = ≥2h** (cervical dilatation remains at 9 cm for 2 or more hours) **Alert value for second stage:** **≥3h in nulliparous women; ≥2h in multiparous women** (birth is not completed by 3 hours from the start of the active second stage in nulliparous and 2 hours in multiparous women) *Evidence shows important variations in the distribution of cervical dilatation patterns among women without risk factors for complications, with many women progressing more slowly than 1 cm/hour for the most part of their labour and yet still achieving vaginal birth with normal birth outcomes (5,14).*	■ Alert triggered when lag time for current cervical dilatation or in second stage is exceeded with no progress. ■ During the first stage, if labour progresses as expected, assess cervical dilatation every 4 hours unless otherwise indicated. When performing a vaginal examination less than 4 hours after the previous assessment, be sure that the examination will add important information to the decision-making process.
Descent	Assess descent by abdominal palpation; refer to the part of the head (divided into five parts) palpable above the symphysis pubis.	Plot "O" in the cell that matches the time and the level of descent. Plot an "O" at every vaginal examination. 5/5, 4/5, 3/5, 2/5, 1/5 and 0/5 should be used to describe the fetal station by abdominal palpation *(9)*.	There are no reference thresholds for this observation, which will vary on each individual case.	■ During first stage, assess descent every 4 hours before performing vaginal examination, unless otherwise indicated. ■ During the second stage, take into account the woman's behaviour, effectiveness of pushing, and baby's position and well-being when deciding the timing of descent assessment.

Example of how to complete Section 5

Date: June 07, 2020 Time 06:00

At the time of admission, Mary Jane presented with three uterine contractions every 10 minutes, of moderate intensity, and lasting 40 seconds.

Vaginal examination shows 5 cm cervical dilatation, cephalic presentation. Fetal descent is 4/5.

Given that all other clinical parameters are normal and that Mary Jane is coping with the labour, the midwife assesses the number and duration of uterine contractions half-hourly Unnecessary vaginal examinations are avoided and vaginal examinations are only performed after 4 hours.

Time 10:00

Mary Jane complains of strong pains. Her sister left the labour ward and Mary Jane is alone, lying in bed in a supine position. Her vitals are heart rate 96 bpm, blood pressure 128/84 mmHg, and FHR is 151 bpm with variable decelerations. Mary Jane has three strong uterine contractions in 10 minutes, lasting 50 seconds each. Fetal descent is 3/5. Cervical dilatation is 8 cm and the fetal position is occiput transverse. Amniotic fluid shows meconium 1+/4.

The midwife offers her a companion of her choice. Mary Jane wants to be accompanied by her sister who had left to speak with the family in the waiting room. The midwife gives directions to Mary Jane's sister on how to support Mary Jane and comfort her by using a cool, damp cloth on her face and body, and by massaging her back.

Time 13:00

Mary Jane maintains three uterine contractions in 10 minutes, lasting 50 seconds each. Fetal descent is 2/5. Cervical dilatation is 10 cm and the fetal position is occiput anterior. Amniotic fluid shows meconium 1+/4. FHR 132 bpm, without decelerations.

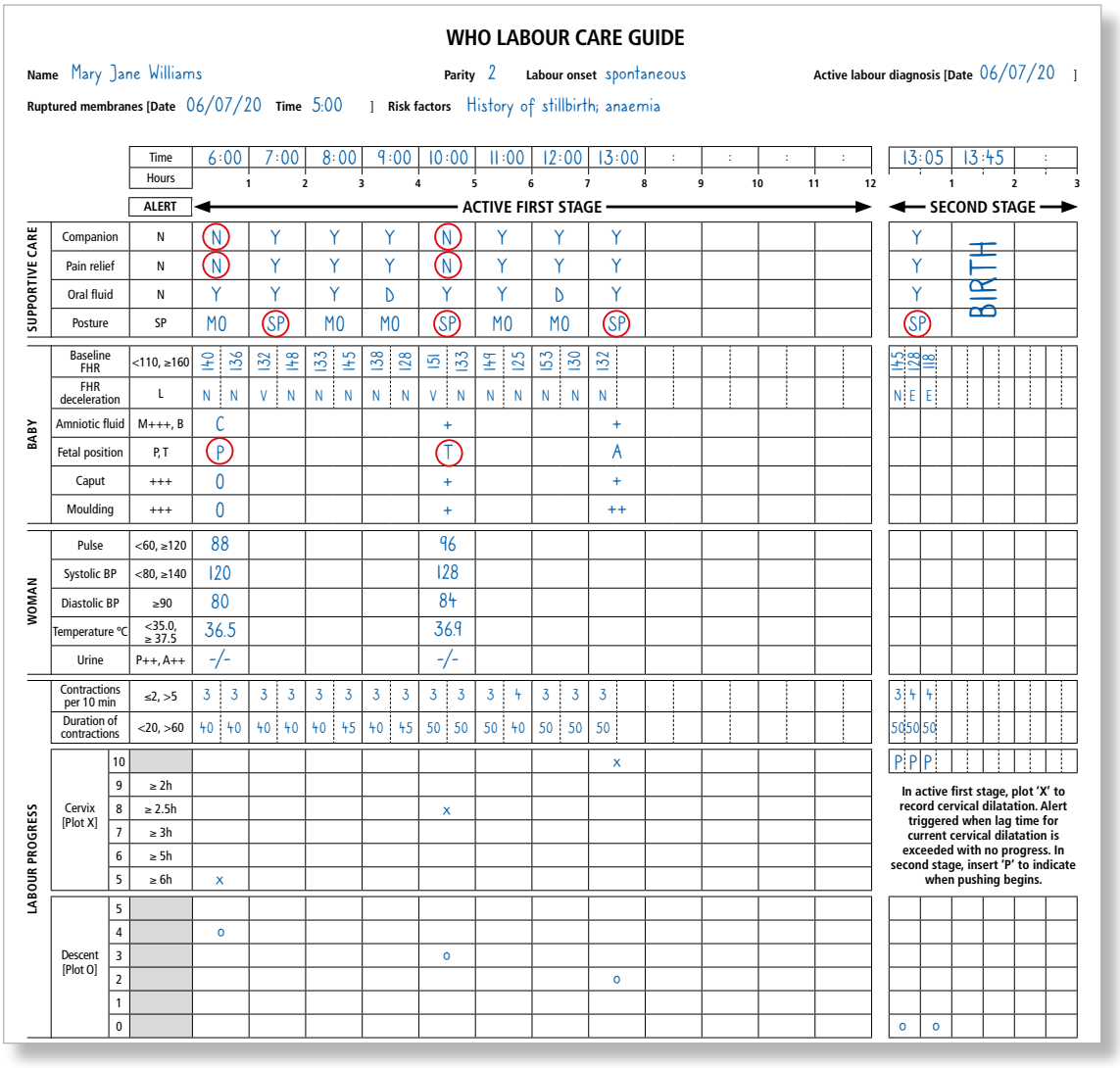
Time 13:30

Mary Jane maintains four uterine contractions in 10 minutes, lasting 50 seconds each. Fetal descent is 0/5. FHR 118 bpm, with early decelerations.

Childbirth takes place vaginally at 13:45.

Figure 7 shows how the LCG would be completed with the information provided above.

Fig. 7. How to complete Section 5



How to complete Section 6: Medication

This section aims to facilitate consistent recording of all types of medication used during labour, by describing whether the woman is receiving oxytocin, and its dose, and whether other medications or IV fluids are being administered (see Table 7).

Table 7. Guidance for completing Section 6 of the LCG

	Step 1: Assess	Step 2: Record
Oxytocin	Is oxytocin currently being administered to the woman?	■ If oxytocin is not being administered, record N = No. ■ If oxytocin is being administered, record the amount of oxytocin in units per litre (U/L) and drops per minute (drops/min). ■ When oxytocin is used, record the amount being administered every 60 minutes.
Medicine	Is the woman receiving any other medication?	■ If no other medication is being administered, record N = No. ■ Record the name, dose and route of administration of any additional medication that is being administered to the woman during active first or second stage of labour (e.g. 50 mg pethidine, intramuscular (IM)).

	Step 1: Assess	Step 2: Record
IV fluid	Is the woman on IV fluids?	Record: Y = Yes N = No *The routine administration of IV fluids for all women in labour is not recommended, given that it reduces women's mobility and unnecessarily increases costs. Low-risk women should be encouraged to drink oral fluids, and they should receive IV fluids (4) only if indicated (5).*

How to complete Section 7: Shared decision-making

This section aims to facilitate continuous communication with the woman and her companion, and the consistent recording of all assessments and plans agreed (see Table 8).

Table 8. Guidance for completing Section 7 of the LCG

	Record
Assessment	■ Record the overall assessment and any additional findings not previously documented but important for labour monitoring.
Plan	■ Record the plan following assessment. For example: • continuation of routine monitoring • prescription of diagnostic tests • augmentation of labour with oxytocin infusion • procedures, such as artificial rupture of membranes • assisted birth with vacuum or forceps • caesarean section. ■ Take into consideration that women should be involved in discussions and be allowed to make informed decisions. ■ Each time a clinical assessment of the woman's and baby's well-being is completed, record the plan based on the shared decision.

Example of how to complete Sections 6 and 7

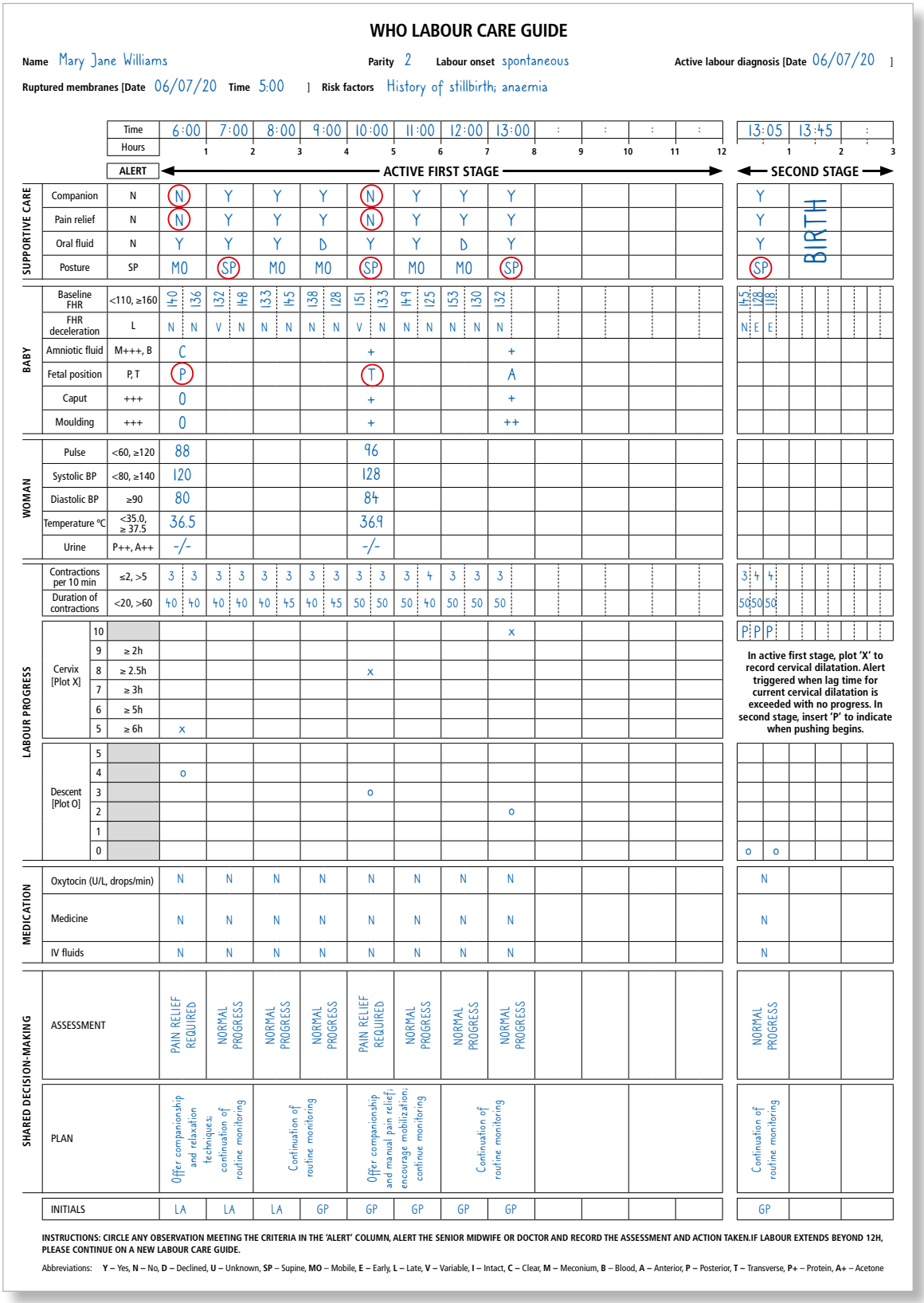
Many Jane had normal progress of labour and childbirth.

During labour, Many Jane was encouraged to walk and to have a companion of her choice present.

Clinical parameters remained within normal thresholds. Consequently, additional interventions were not required.

Below you will find an example of how to complete Sections 6 and 7 of the LCG (see Fig. 8) based on the above information.

Fig. 8. How to complete Sections 6 and 7



WHO LABOUR CARE GUIDE

Name: Mary Jane Williams | Parity: 2 | Labour onset: spontaneous | Active labour diagnosis [Date: 06/07/20]

Ruptured membranes [Date: 06/07/20 Time: 5:00] | Risk factors: History of stillbirth; anaemia

			Time	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	:	:	:	:	13:05	13:45	:
			Hours	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
			ALERT	← ACTIVE FIRST STAGE →												← SECOND STAGE →		
SUPPORTIVE CARE	Companion	N		(N)	Y	Y	Y	(N)	Y	Y	Y					Y		
	Pain relief	N		(N)	Y	Y	Y	(N)	Y	Y	Y					Y		
	Oral fluid	N		Y	Y	Y	D	Y	Y	D	Y					Y		
	Posture	SP		MO	(SP)	MO	MO	(SP)	MO	MO	(SP)					(SP)		
BABY	Baseline FHR	<110, ≥160		140 136	132 148	133 145	138 128	151 133	149 125	153 130	132					145 128 118		
	FHR deceleration	L		N N	V N	N N	N N	V N	N N	N N	N					N E E		
	Amniotic fluid	M+++, B		C				+			+							
	Fetal position	P, T		(P)				(T)			A							
	Caput	+++		0				+			+							
	Moulding	+++		0				+			++							
WOMAN	Pulse	<60, ≥120		88				96										
	Systolic BP	<80, ≥140		120				128										
	Diastolic BP	≥90		80				84										
	Temperature °C	<35.0, ≥ 37.5		36.5				36.9										
	Urine	P++, A++		-/-				-/-										
LABOUR PROGRESS	Contractions per 10 min	≤2, >5		3 3	3 3	3 3	3 3	3 3	3 4	3 3	3					3 4 4		
	Duration of contractions	<20, >60		40 40	40 40	40 45	40 45	50 50	50 40	50 50	50					50 50 50		
	Cervix [Plot X]	10									x					P P P		
		9	≥ 2h															
		8	≥ 2.5h					x										
		7	≥ 3h															
		6	≥ 5h															
		5	≥ 6h	x														
	Descent [Plot O]	5																
		4		o														
		3						o										
		2									o							
		1																
		0														o o		
MEDICATION	Oxytocin (U/L, drops/min)			N	N	N	N	N	N	N	N					N		
	Medicine			N	N	N	N	N	N	N	N					N		
	IV fluids			N	N	N	N	N	N	N	N					N		
SHARED DECISION-MAKING	ASSESSMENT			PAIN RELIEF REQUIRED	NORMAL PROGRESS	NORMAL PROGRESS	NORMAL PROGRESS	PAIN RELIEF REQUIRED	NORMAL PROGRESS	NORMAL PROGRESS	NORMAL PROGRESS					NORMAL PROGRESS		
	PLAN			Offer companionship and relaxation techniques; continuation of routine monitoring		Continuation of routine monitoring		Offer companionship and manual pain relief; encourage mobilization; continue monitoring		Continuation of routine monitoring						Continuation of routine monitoring		
	INITIALS			LA	LA	LA	GP	GP	GP	GP	GP					GP		

BIRTH

In active first stage, plot 'X' to record cervical dilatation. Alert triggered when lag time for current cervical dilatation is exceeded with no progress. In second stage, insert 'P' to indicate when pushing begins.

INSTRUCTIONS: CIRCLE ANY OBSERVATION MEETING THE CRITERIA IN THE 'ALERT' COLUMN, ALERT THE SENIOR MIDWIFE OR DOCTOR AND RECORD THE ASSESSMENT AND ACTION TAKEN.IF LABOUR EXTENDS BEYOND 12H, PLEASE CONTINUE ON A NEW LABOUR CARE GUIDE.

Abbreviations: **Y** – Yes, **N** – No, **D** – Declined, **U** – Unknown, **SP** – Supine, **MO** – Mobile, **E** – Early, **L** – Late, **V** – Variable, **I** – Intact, **C** – Clear, **M** – Meconium, **B** – Blood, **A** – Anterior, **P** – Posterior, **T** – Transverse, **P+** – Protein, **A+** – Acetone

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ANNEX 1

WHO Labour Care Guide

WHO LABOUR CARE GUIDE

Name **Parity** **Labour onset** **Active labour diagnosis [Date**]

Ruptured membranes [Date **Time**] **Risk factors**

			Time	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
			Hours	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
			ALERT	← ACTIVE FIRST STAGE →												← SECOND STAGE →		
SUPPORTIVE CARE	Companion	N																
	Pain relief	N																
	Oral fluid	N																
	Posture	SP																
BABY	Baseline FHR	<110, ≥160																
	FHR deceleration	L																
	Amniotic fluid	M+++, B																
	Fetal position	P, T																
	Caput	+++																
	Moulding	+++																
WOMAN	Pulse	<60, ≥120																
	Systolic BP	<80, ≥140																
	Diastolic BP	≥90																
	Temperature °C	<35.0, ≥ 37.5																
	Urine	P++, A++																
LABOUR PROGRESS	Contractions per 10 min	≤2, >5																
	Duration of contractions	<20, >60																
	Cervix [Plot X]	10																
		9	≥ 2h															
		8	≥ 2.5h															
		7	≥ 3h															
		6	≥ 5h															
		5	≥ 6h															
	Descent [Plot O]	5																
		4																
		3																
		2																
		1																
		0																
MEDICATION	Oxytocin (U/L, drops/min)																	
	Medicine																	
	IV fluids																	
SHARED DECISION-MAKING	ASSESSMENT																	
	PLAN																	
	INITIALS																	

In active first stage, plot 'X' to record cervical dilatation. Alert triggered when lag time for current cervical dilatation is exceeded with no progress. In second stage, insert 'P' to indicate when pushing begins.

INSTRUCTIONS: CIRCLE ANY OBSERVATION MEETING THE CRITERIA IN THE 'ALERT' COLUMN, ALERT THE SENIOR MIDWIFE OR DOCTOR AND RECORD THE ASSESSMENT AND ACTION TAKEN.IF LABOUR EXTENDS BEYOND 12H, PLEASE CONTINUE ON A NEW LABOUR CARE GUIDE.

Abbreviations: **Y** – Yes, **N** – No, **D** – Declined, **U** – Unknown, **SP** – Supine, **MO** – Mobile, **E** – Early, **L** – Late, **V** – Variable, **I** – Intact, **C** – Clear, **M** – Meconium, **B** – Blood, **A** – Anterior, **P** – Posterior, **T** – Transverse, **P+** – Protein, **A+** – Acetone

ANNEX 2

Adapting the WHO Labour Care Guide

The WHO Labour Care Guide has been developed to align with *WHO recommendations on intrapartum care for a positive childbirth experience (5)*. Some adaptations may be needed to reflect local conventions (e.g. the use of Hodge planes for classifying fetal descent).

Removing recommended practices from the LCG is strongly discouraged. Even in those settings where some interventions are less feasible or not consistently available, monitoring the use of these interventions is important to help drive improvements in overall quality of care.

Below we describe a process for reviewing the LCG and identifying elements to be adapted (see Fig. 9).

Fig. 9. Process for adapting the LCG

Aim for quality of care → Any adaptations of the LCG should be undertaken with caution to ensure that effective interventions are not removed.

Involve experts and end-users → National or local experts should review the LCG in light of relevant national standards and guidelines. Health-care providers working in maternity-care settings should be involved in adaptation activities.

Pilot the adapted LCG → Prior to any rollout of an adapted LCG, pilot it in clinical settings and encourage end-users' feedback. This can facilitate successful adoption.

Keep it concise → Keep the LCG focused on labour monitoring and avoid incorporating too many new variables. The LCG should not replace a medical record. The more items are added, the more likely clinicians are to record variables twice. When incorporating new variables or parameters, consider:

- Is it relevant for labour monitoring?
- Is it evidence based?
- Is it feasible to collect it in any different setting?
- Is it already in the medical record?
- Would it be more appropriate in the medical record?

ANNEX 3

Introducing the WHO Labour Care Guide into labour wards

The LCG is a tool that aims to support implementation of the *WHO recommendations: intrapartum care for a positive childbirth experience (5)*. The current level of implementation of different care practices in the LCG may vary. For example, the LCG includes practices that may already be well implemented in labour wards (e.g. offering pharmacological pain relief). Other practices may not be well implemented, and the LCG can help managers and health-care providers to set goals to improve the quality of labour and childbirth care.

It is well known that simply disseminating recommendations will not ensure their successful adoption by health-care providers *(15)*. There may also be additional barriers to implementing the LCG into routine care. For example, providers in facilities with high workloads or fewer resources may consider the LCG time consuming or less feasible. In other facilities, providers may be unwilling to update their long-standing practice or may be otherwise resistant to adopting the LCG in routine care. In such situations, a robust implementation strategy should be designed to introduce the LCG into labour wards.

To introduce the LCG in labour care wards, an active multi-component implementation strategy will be required. A pilot study in six countries identified a number of strategies for implementing the LCG *(16)* (see Table 9).

Table 9. Strategies for implementing the LCG

Review and adaptation	Leadership and training
✔ Critically review the LCG and decide whether local adaptation is needed. ✔ Ensure the abbreviations that providers are required to use in the LCG are locally meaningful. ✔ Involve local leaders and administrators in adaptation activities. ✔ Optimize providers' time: minimize any duplication of recording between the LCG and medical record. ✔ Avoid adding variables, mainly if they are not meaningful for labour and childbirth care. ✔ Target best quality; do not remove LCG components just because they cannot be accomplished. ✔ Review policies and associated procedures required to provide an enabling environment for use of the LCG. ✔ Translate the LCG, manual and other educational materials if necessary.	✔ Build a team with expertise in LCG, from various disciplines (obstetrics, midwifery, nursing), to provide training. ✔ Ask thought leaders and local champions to familiarize themselves with the LCG. ✔ Plan initial training, refresher trainings and continuous support and mentoring activities. ✔ Include a strong practical component in the training programme. ✔ Give time for skills acquisition. Providers may find the LCG initially offputting, and will need some time to familiarize with the LCG. ✔ Conduct training in the local language. ✔ Provide early and structured feedback on completed LCGs to help users improve their skills.
Teamwork in completing the LCG	**Monitoring and evaluation**
✔ The use of the LCG should be the responsibility of the entire health-care team. ✔ The LCG guides objective data-driven decision-making. Take into account that some staff completing the LCG may require extra support and supervision. ✔ Target universal implementation (in all shifts). The LCG can work well to support handover between shifts.	✔ Maintain or establish a monitoring system based on the LCG to track quality-of-care indicators, for example the proportion of women with a labour companion of choice, and the caesarean section rate. ✔ Show and share quality-of-care indicators to help drive improvements.

ANNEX 4

Summary list of recommendations on intrapartum care for for a positive childbirth experience

Care option	Recommendation	Category of recommendation
Care throughout labour and birth		
Respectful maternity care	1. Respectful maternity care – which refers to care organized for and provided to all women in a manner that maintains their dignity, privacy and confidentiality, ensures freedom from harm and mistreatment, and enables informed choice and continuous support during labour and childbirth – is recommended.	Recommended
Effective communication	2. Effective communication between maternity care providers and women in labour, using simple and culturally acceptable methods is recommended.	Recommended
Companionship	3. A companion of choice is recommended for all women throughout labour and childbirth.	Recommended
Continuity of care	4. Midwife-led continuity-of-care models, in which a known midwife or small group of midwives supports a woman throughout the antenatal, intrapartum and postnatal continuum, are recommended in settings with well-functioning midwifery programmes.	Context-specific recommendation
First stage of labour		
Definitions of the latent and active first stages of labour	5. The use of the following definitions of the latent and active first stages of labour is recommended for practice: • The latent, first stage is a period of time characterized by painful uterine contractions and variable changes of the cervix, including some degree of effacement and slower progression of dilatation up to 5 cm for first and subsequent labours. • The active first stage is a period of time characterized by regular painful uterine contractions, a substantial degree of cervical effacement and more rapid cervical dilatation from 5 cm until full dilatation for first and subsequent labours.	Recommended
Duration of the first stage of labour	6. Women should be informed that a standard duration of the latent first stage has not yet been established and can vary widely from one woman to another. However, the duration of active first stage (from 5 cm until full cervical dilatation) usually does not extend beyond 12 hours in first labours, and usually does not extend beyond 10 hours in subsequent labours.	Recommended

Care option	Recommendation	Category of recommendation
First stage of labour		
Progress of the first stage of labour	7. For pregnant women with spontaneous labour onset, the cervical dilatation rate threshold of 1 cm/hour during active first stage (as depicted by the partograph alert line) is inaccurate to identify women at risk of adverse birth outcomes and is therefore not recommended for this purpose. 8. A minimum cervical dilatation rate of 1 cm/hour throughout active first stage is unrealistically fast for some women and is therefore not recommended for identification of normal labour progression. A slower than 1 cm/hour cervical dilatation rate alone should not be a routine indication for obstetric intervention. 9. Labour may not naturally accelerate until a cervical dilatation threshold of 5 cm is reached. Therefore, the use of medical interventions to accelerate labour and birth (such as oxytocin augmentation or caesarean section) before this threshold is not recommended, provided that fetal and maternal conditions are reassuring.	Not recommended Not recommended Not recommended
Labour ward admission policy	10. For healthy pregnant women presenting in spontaneous labour, a policy of delaying labour ward admission until active first stage is recommended only in the context of rigorous research.	Research-context recommendation
Clinical pelvimetry on admission	11. Routine clinical pelvimetry on admission in labour is not recommended for healthy pregnant women.	Not recommended
Routine assessment of fetal well-being on labour admission	12. Routine cardiotocography is not recommended for the assessment of fetal well-being on labour admission in healthy pregnant women presenting in spontaneous labour. 13. Auscultation using a Doppler ultrasound device or Pinard fetal stethoscope is recommended for the assessment of fetal well-being on labour admission.	Not recommended Recommended
Perineal/pubic shaving	14. Routine perineal/pubic shaving prior to giving vaginal birth is not recommended.	Not recommended
Enema on admission	15. Administration of an enema for reducing the use of labour augmentation is not recommended.	Not recommended
Digital vaginal examination	16. Digital vaginal examination at intervals of four hours is recommended for routine assessment of active first stage of labour in low-risk women.	Recommended
Continuous cardiotocography during labour	17. Continuous cardiotocography is not recommended for assessment of fetal well-being in healthy pregnant women undergoing spontaneous labour.	Not recommended
Intermittent fetal heart rate auscultation	18. Intermittent auscultation of the fetal heart rate with either a Doppler ultrasound device or Pinard fetal stethoscope is recommended for healthy pregnant women in labour.	Recommended
Epidural analgesia for pain relief	19. Epidural analgesia is recommended for healthy pregnant women requesting pain relief during labour. This depends on a woman's preferences.	Recommended
Opioid analgesia for pain relief	20. Parenteral opioids, such as fentanyl, diamorphine and pethidine, are recommended options for healthy pregnant women requesting pain relief during labour. This depends on a woman's preferences.	Recommended

Care option	Recommendation	Category of recommendation
First stage of labour		
Relaxation techniques for pain management	21. Relaxation techniques such as including progressive muscle relaxation, breathing, music, mindfulness and other techniques are recommended for healthy pregnant women requesting pain relief during labour. This depends on a woman's preferences.	Recommended
Manual techniques for pain management	22. Manual techniques, such as massage or application of warm packs, are recommended for healthy pregnant women requesting pain relief during labour. This depends on a woman's preferences.	Recommended
Pain relief for preventing labour delay	23. Pain relief for preventing delay and reducing the use of augmentation in labour is not recommended.	Not recommended
Oral fluid and food	24. For women at low risk, oral fluid and food intake during labour are recommended.	Recommended
Maternal mobility and position	25. Encouraging the adoption of mobility and an upright position during labour in women at low risk is recommended.	Recommended
Vaginal cleansing	26. Routine vaginal cleansing with chlorhexidine during labour for the purpose of preventing infectious morbidities is not recommended.	Not recommended
Active management of labour	27. A package of care for active management of labour for prevention of delay in labour is not recommended.	Not recommended
Routine amniotomy	28. The use of amniotomy alone for the prevention of delay in labour is not recommended.	Not recommended
Early amniotomy and oxytocin	29. The use of early amniotomy with early oxytocin augmentation for prevention of delay in labour is not recommended.	Not recommended
Oxytocin for women with epidural analgesia	30. The use of oxytocin for prevention of delay in labour in women receiving epidural analgesia is not recommended.	Not recommended
Antispasmodic agents	31. The use of antispasmodic agents for prevention of delay in labour is not recommended.	Not recommended
Intravenous fluids for preventing labour delay	32. The use of intravenous fluids with the aim of shortening the duration of labour is not recommended.	Not recommended
Second stage of labour		
Definition and duration of the second stage of labour	33. The use of the following definition and duration of the second stage of labour is recommended for practice: • The second stage is the period of time between full cervical dilatation and birth of the baby, during which the woman has an involuntary urge to bear down, as a result of expulsive uterine contractions. • Women should be informed that the duration of the second stage varies from one woman to another. In first labours, birth is usually completed within 3 hours whereas in subsequent labours, birth is usually completed within 2 hours.	Recommended
Birth position (for women without epidural)	34. For women without epidural analgesia, encouraging the adoption of a birth position of the individual woman's choice, including upright positions, is recommended.	Recommended
Birth position (for women with epidural)	35. For women with epidural analgesia, encouraging the adoption of a birth position of the individual woman's choice, including upright positions, is recommended.	Recommended

Care option	Recommendation	Category of recommendation
Second stage of labour		
Method of pushing	36. Women in the expulsive phase of the second stage of labour should be encouraged and supported to follow their own urge to push.	Recommended
Method of pushing (for women with epidural analgesia)	37. For women with epidural analgesia, delaying pushing for one to two hours after full dilatation or until the woman regains the sensory urge to bear down is recommended in the context where resources are available for longer stay in second stage and perinatal hypoxia can be adequately assessed and managed.	Context-specific recommendation
Techniques for preventing perineal trauma	38. For women in the second stage of labour, techniques to reduce perineal trauma and facilitate spontaneous birth (including perineal massage, warm compresses and a "hands on" guarding of the perineum) are recommended, based on a woman's preferences and options available to her.	Recommended
Episiotomy policy	39. Routine or liberal use of episiotomy is not recommended for women undergoing spontaneous vaginal birth.	Not recommended
Fundal pressure	40. Application of manual fundal pressure to facilitate childbirth during the second stage of labour is not recommended.	Not recommended
Third stage of labour		
Prophylactic uterotonics	41. The use of uterotonics for the prevention of postpartum haemorrhage (PPH) during the third stage of labour is recommended for all births. 42. Oxytocin (10 IU, IM/IV) is the recommended uterotonic drug for the prevention of postpartum haemorrhage (PPH). 43. In settings where oxytocin is unavailable, the use of other injectable uterotonics (if appropriate, ergometrine/methylergometrine, or the fixed drug combination of oxytocin and ergometrine) or oral misoprostol (600 μg) is recommended.	Recommended Recommended Recommended
Delayed umbilical cord clamping	44. Delayed umbilical cord clamping (not earlier than 1 minute after birth) is recommended for improved maternal and infant health and nutrition outcomes.	Recommended
Controlled cord traction (CCT)	45. In settings where skilled birth attendants are available, CCT is recommended for vaginal births if the care provider and the parturient woman regard a small reduction in blood loss and a small reduction in the duration of the third stage of labour as important.	Recommended
Uterine massage	46. Sustained uterine massage is not recommended as an intervention to prevent postpartum haemorrhage in women who have received prophylactic oxytocin.	Not recommended
Care of the newborn		
Routine nasal or oral suction	47. Suctioning of the mouth and nose should not be performed in the case of neonates born through clear amniotic fluid who start breathing on their own after birth.	Not recommended
Skin-to-skin contact	48. Newborns without complications should be kept in skin-to-skin contact with their mothers during the first hour after birth to prevent hypothermia and promote breastfeeding.	Recommended

Care option	Recommendation	Category of recommendation
Care of the newborn		
Breastfeeding	49. All newborns, including low birth-weight babies who are able to breastfeed, should be put to the breast as soon as possible after birth when they are both clinically stable, and the mother and baby are ready.	Recommended
Haemorrhagic disease prophylaxis using vitamin K	50. All newborns should be given 1 mg of vitamin K intramuscularly after birth (i.e. after the first hour by which the infant should already be in skin-to-skin contact with the mother and breastfeeding should already be initiated).	Recommended
Bathing and other immediate postnatal care of the newborn	51. Bathing should be delayed until 24 hours after birth. If this is not possible due to cultural reasons, bathing should be delayed for at least six hours. Appropriate clothing of the baby for ambient temperature is recommended. This means one to two layers of clothes more than adults, and use of hats/caps. The mother and baby should not be separated and should stay in the same room 24 hours a day.	Recommended
Care of the woman after birth		
Uterine tonus assessment	52. Postpartum abdominal uterine tonus assessment for early identification of uterine atony is recommended for all women.	Recommended
Antibiotics for uncomplicated vaginal birth	53. Routine antibiotic prophylaxis is not recommended for women with uncomplicated vaginal birth.	Not recommended
Routine antibiotic prophylaxis for episiotomy	54. Routine antibiotic prophylaxis is not recommended for women with episiotomy.	Not recommended
Routine postpartum maternal assessment	55. All postpartum women should have regular assessment of vaginal bleeding, uterine contraction, fundal height, temperature and heart rate (pulse) routinely during the first 24 hours starting from the first hour after birth. Blood pressure should be measured shortly after birth. If normal, the second blood pressure measurement should be taken within 6 hours. Urine void should be documented within 6 hours.	Recommended
Discharge following uncomplicated vaginal birth	56. After an uncomplicated vaginal birth in a health-care facility, healthy mothers and newborns should receive care in the facility for at least 24 hours after birth.	Recommended

ANNEX 5

Basic equipment and supplies for intrapartum care

Health facilities require basic essential equipment and supplies for routine care and detection of complications in the areas of the maternity unit for labour and childbirth, which should be available in sufficient quantities at all times *(17)*.

The information listed in this section is neither meant to be an exhaustive list nor to imply that, by omission, other equipment and supplies may not be necessary for the provision of quality intrapartum care, based on the availability of resources and on women's and provider's preferences.

Warm and clean room ■ Sufficient examination tables or beds with clean linens ■ Light source ■ Heat source ■ Clean and accessible bathrooms for the use of women in labour ■ Curtains if more than one bed	**Equipment** ■ Sphygmomanometer or other blood pressure machine ■ Stethoscope ■ Body thermometer ■ Fetal stethoscope or Doppler
Hand washing ■ Clean water supply ■ Soap ■ Nail brush or stick ■ Clean towels ■ Alcohol-based hand rub	**Medication** ■ Bag of IV fluids ■ Oxytocin ■ Injectable magnesium sulfate ■ Antibiotics ■ Antiretroviral ■ Antihypertensive ■ Analgesics ■ Anaesthetic
Waste ■ Bucket for soiled pads and swabs ■ Receptacle for soiled linens ■ Container for sharps disposal	**Sterilization** ■ Instrument sterilizer ■ Jar for forceps ■ Vacuum extractor
Miscellaneous ■ Printed LCG ■ Wall clock ■ Torch with extra batteries and bulb ■ Log book ■ Medical records ■ Informed consent forms ■ Refrigerator ■ Basic accommodation facilities for companions (chair, space to change, clothes, access to a toilet) ■ Private physical space for the woman and her companion ■ Power supply ■ Food and drinking water	**Supplies** ■ Gloves ■ Urinary catheter ■ Syringes and needles ■ Sterilized blade/scissors ■ IV tubing ■ Suture material for tear or episiotomy repair ■ Antiseptic solution (iodophors or chlorhexidine) ■ Spirit (70% alcohol) ■ Swabs ■ Bleach (chlorine-based compound) ■ Impregnated bed net ■ Urine dipsticks ■ Clamps ■ Oxygen cylinder/concentrator

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