

Ballard Exam for Gestational Age (To be completed within 24hrs of birth)

Physical Maturity

	-1	0	1	2	3	4	5
Skin	Sticky, friable, transparent	Gelatinous red, translucent	Smooth pink, visible veins	Superficial peeling and/or rash, few veins	Cracking, pale areas, rare veins	Parchment, deep cracking, no vessels	Leathery, cracked, wrinkled
Lanugo	None	Sparse	Abundant	Thinning	Bald areas	Mostly bald	
Plantar Creases	Heel-toe 40-50 mm = -1,	Heel-toe >50 mm, no creases	Faint red marks	Anterior transverse crease only	Creases over anterior 2/3	Creases over entire sole	
Breast	Imperceptible	Barely perceptible	Flat areola, no bud	Stippled areola, 1-2 mm bud	Raised areola, 3-4 mm bud	Full areola, 5-10 mm bud	
Eye & Ear	Lids fused, loosely = -1, tightly = -2	Lids open, pinna flat, stays folded	Slightly curved pinna, soft with slow recoil	Well-curved pinna, soft but ready recoil	Formed and firm, with instant recoil	Thick cartilage, ear stiff	
Genitals, male	Scrotum flat, smooth	Scrotum empty, faint rugae	Testes in upper canal, rare rugae	Testes descending, few rugae	Testes down, good rugae	Testes pendulous, deep rugae	
Genitals, female	Clitoris prominent, labia flat	Prominent clitoris, small labia minora	Prominent clitoris, enlarging minora	Majora and minora equally prominent	Majora large, minora small	Majora cover clitoris and minora	

Physical Score: _____

Neuromuscular Maturity

	-1	0	1	2	3	4	5
Posture							
Square Window							
Arm Recoil							
Politeal Angle							
Scarf Sign							
Heel to Ear							

Maturity Rating

Total Score	Gestational Age, Weeks
-10	20
-5	22
0	24
5	26
10	28
15	30
20	32
25	34
30	36
35	38
40	40
45	42
50	44

Neuromuscular Score: _____ Total Score: _____

Gestation by: Dates _____ Ultrasound < 20weeks: _____ SFH: _____ Ballard: _____

Final composite gestational age: _____

NB: Plot birth measurements on the Percentile Growth Chart then decide on:

LGA (Large for gestational age)	AGA (Appropriate for gestational age)	SGA (Small for gestational age)	SYMETRICAL	ASYMETRICAL
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Scored by: _____ Sign: _____ Date: _____ Time: _____

Daily Summary Chart

Complete the table below daily. It serves as a summary of management given in order to plot progress and assist with completing the discharge summary. Mark with a each day the baby has received the listed interventions.

Day	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	25.	26.	27.	28.	29.	30
Bed number																														
Respiratory																														
Nasal Prong oxygen																														
nCPAP																														
IPPV																														
Oscillation																														
Chest Drain																														
Fluids and nutrition																														
NPO																														
NG feeds																														
Oral feeds																														
TPN																														
Peripheral IV																														
Peripheral arterial																														
Umbilical venous line																														
Umbilical arterial line																														
PICC																														
CVC																														
Urinary Catheter																														
Medications																														
1 st line antibiotics																														
2 nd line antibiotics																														
3 rd line antibiotics																														
Anticonvulsants																														
Inotropes																														
Caffeine/Aminophylline																														
General																														
Phototherapy																														
Blood transfusion																														

Management Checklist – MO and Nurse (Check weekly that the following management /information has been given.)				
Nursing Management	Comments	Date	Sign	Print
First examination completed				
Ballard score sheet completed				
Road to Health Book (RtHB) issued				
Mother well-social history obtained				
If mother lodging-Post natal 'visit' given ≤ 6 days				
Immunisations				
Birth Immunisations	BCG			
	Polio			
	NO BCG if baby symptomatic or mum has TB			
6 week post initial immunisations				
Discharge				
Birth registered or advice given				
All IV devices/strapping removed				
In skin to skin position on discharge				
Family planning given to mother				
Take home medications given				
Discharge education given				
Discharge summary given/filed-	In patient record			
Mother-stapled in RtHB				
Unit discharge file				
KMC follow up and growth chart stapled in RtHB				
Medical Management	Comments	Date	Sign	Print
Screening and Consultations-Indicate if performed (P) or booked (B) at referral centre				
Cranial ultrasound- If <32wks/<1500g. Wk 1 & repeat wk 4-5				
Audiology- All patients				
Retinopathy of Prematurity (ROP) If <32wks/<1500g and 1.5-2kg in presence of risk factors. Screen at 4-6wks				
Social worker consulted	Teenage mother			
Alcohol/ drug abuse				
Depression/psychosis				
Social issues				
Other				
Rehab team consulted	Preterm			
Encephalopathy				
Dietician consulted	Poor milk production 3 days no weight gain/loss			
Other				
HIV management				
Mother taking ARVs				
Mother's viral load known				
PCR baby taken				
PCR result known				
Baby receiving ARVs				
Co-timoxazole commenced (from 4-6 weeks)				
Supplements –Babies <37weeks				
Multivitamins (from 14 days/full feeds)				
Vitamin D (from 14 days/full feeds)				
Folate (from 14 days/full feeds)				
Iron (from 21 days)				
Discharge				
All SOPs completed				
Signed out by Doctor				
RtHB- Pg ii ,27 and 38 completed				
Final summary -cover of Support pack completed				
Follow up appointments given to mother in writing				

Health Education				
Orientation to unit	Date	Sign	Print	Mother sign
Introduction to staff				
Unit layout and function of various equipment				
Unit routine				
Visiting policy- Parents 24hrs. Siblings and identified visitors during visiting hours				
Roles and responsibilities of the mother				
Support available for mother				
Lodger facilities				
Down referral policy				
Infection control				
Personal hygiene- daily bath, clean clothes.				
Washing hands- process, entry to unit & hand spray				
No sharing of equipment				
No sharing of breast milk				
Daily cleaning incubator / cot				
Not to touch other babies				
Care of the newborn				
Buttock care				
Cord, eye and mouth care				
Temperature control				
Jaundice				
Administration of oral medications				
Breast and tube feeding				
Expressing				
Storage of milk				
Increasing milk production				
Checking tube placement				
Signs of feeding intolerance				
Donor milk				
Readiness for oral feeding				
Benefits of breastfeeding				
Baby friendly initiative				
Nipple preparation				
Frequency of feeds				
Positioning, rooting & latching				
Winding and unlatching				
Developmentally supportive care				
Nesting				
Low light and sound				
Prone lying				
Flexion & containment				
Understanding baby's cues				
Kangaroo care	Benefits			
	Position –NB extension of the neck			
	Support-in hospital and at home			
	Nutrition-breast milk only			
	Early discharge (KMC at home) and follow up			
Pain management				
Signs of pain				
Comfort measures-	Containment (Still holding)			
	Non- nutritive sucking (sucrose)			
	Swaddling			

HIV management/care	Date	Sign	Print	Mother sign
Result of birth HIV PCR				
How to give ARVs				
Importance of adherence				
Dangers of mixed feeding				
Formula if high risk mother				
Continue nevirapine 1 week after stopping breastfeeding				
Repeat HIV PCR 6 weeks after stopping breast feeding				
Special needs				
Dysmorphism				
Wound care				
Stoma care				
Management of cleft palate				
Other conditions				
Physio. OT, Speech therapy				
Screening				
Retinopathy of Prematurity (ROP)				
Intra ventricular Haemorrhage (IVH)				
Hearing				
Other				
Discharge education				
Readiness for discharge				
Discharge baby in KMC position				
Feeding				
Exclusive breast feeding for 6mths-no other solids or water				
Indications for formula-risks discussed				
Preparation of formula				
Cleaning & sterilisation of containers & teats				
Danger signs-go straight to health facility				
Fast breathing				
Not drinking well/decreased activity				
Pale/blue/yellow colour				
Vomiting				
Common conditions and management				
Colic				
Thrush				
Diarrhoea				
Sticky eyes				
Nappy rash				
Take home medications				
Prescription (purpose & duration)				
Supplements (for 6mths-year)				
Dosage and administration				
Where/when to collect				
Dangers of traditional/Dutch/other non-prescribed medications				
Preparation & administration of oral rehydration therapy				
General				
General hygiene and bathing				
"Back to sleep" positioning to prevent SIDS				
Community KMC and follow up at KMC clinic				
-baby in KMC position at all times				
-weekly/biweekly KMC follow up until 2500g				
Use of Road to Health booklet				
Scheduled clinic visits				
Support from community care giver (CCG)				

Ongoing Counselling (For any change in condition or prognosis)			
Diagnosis and underlying conditions			
Management/treatment options, goals & possible side effects			
Complications and adverse events			
Prognosis –severity of illness.			
Mother’s understanding/questions/concerns			
Conclusion			
Date:		Time:	
Sign (Doctor)		Print	MP No.
Sign (Nurse)		Print	SANC No.
Sign (Mother)		Print	

Indicate names of any translator/ witness/ family member present:
NB: If baby is for palliative care-Record on palliative care form. Y / N Sign: Date:

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PHOTOTHERAPY

In presence of risk factors use one line lower (the gestation below) until <1000g.
If gestational age is accurate, rather use gestational age (weeks) instead of body weight

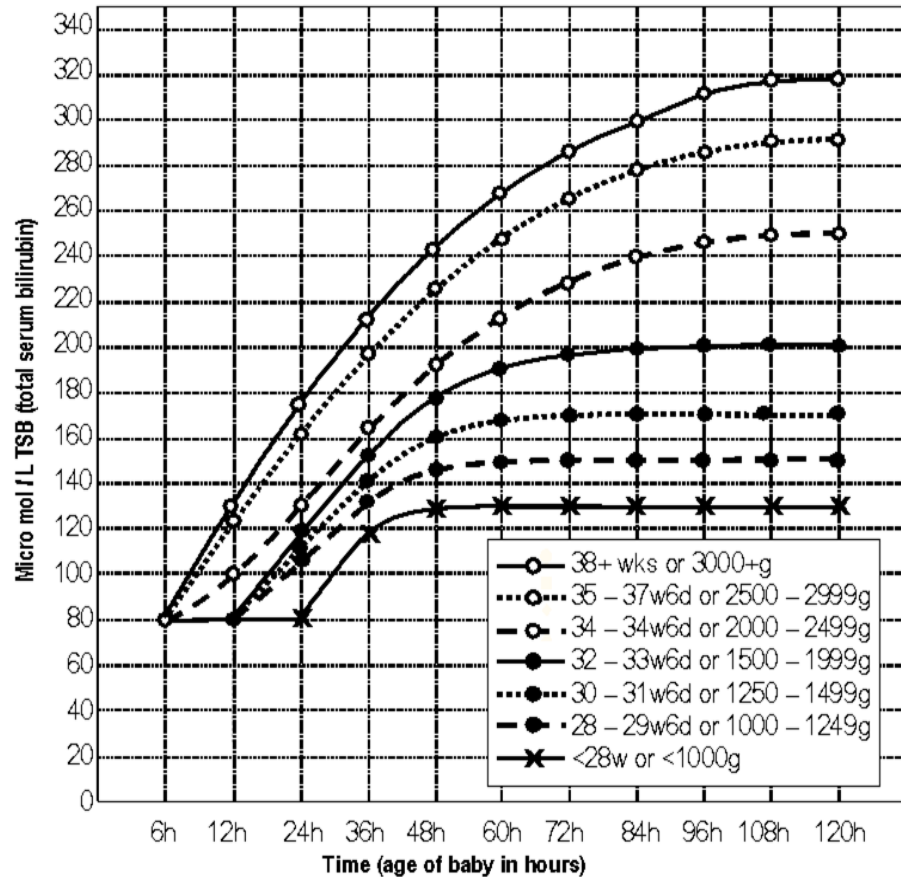
Infants > 12 hours old with TSB level below threshold, repeat TSB level as follows:
1- 20µmol/L below line: repeat TSB in 6hrs or start phototherapy and rept TSB in 12- 24hrs,
21 - 50 µmol/L below line: repeat TSB in 12 - 24hrs,
>50 µmol/L below line: rept TSB until it is falling and/or until jaundice is clinically resolving

Infants under phototherapy :

Check the TSB 12 - 24 hly but if TSB >30 µmol/L above the line , check TSB 4 - 6hly.

STOP phototherapy :

If TSB > 50 µmol/L below the line. Recheck TSB in 12 - 24hr.

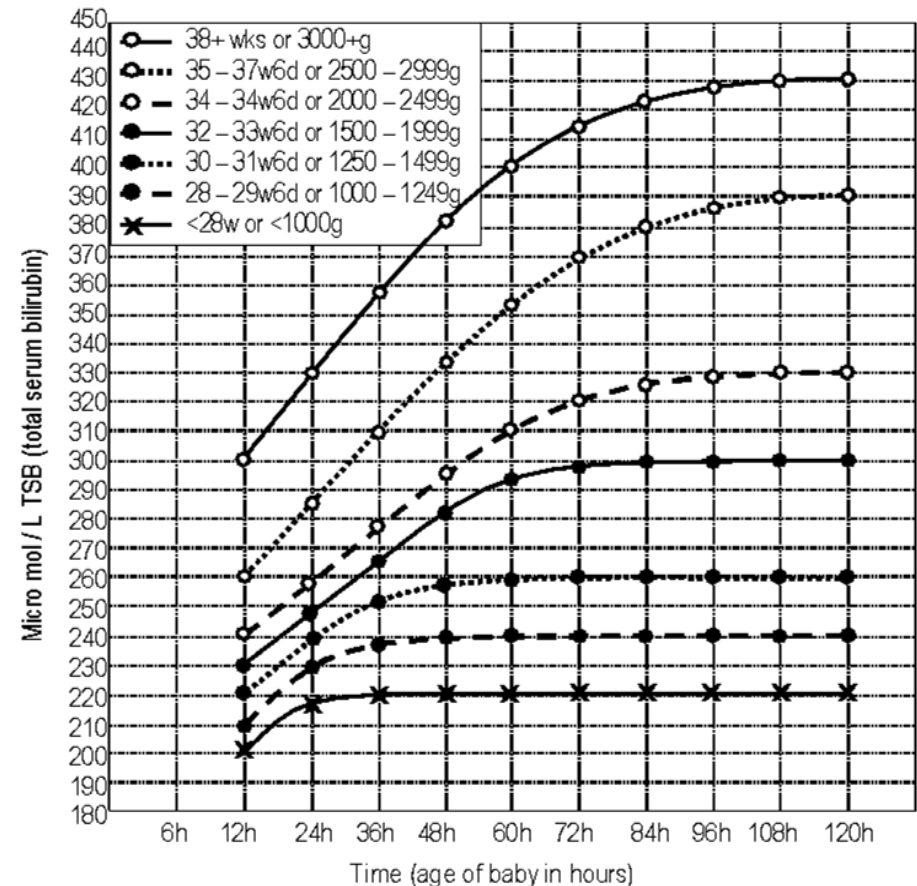


Start phototherapy when the TSB is _____ g to gestation or weight.

EXCHANGE TRANSFUSION

In presence of sepsis, haemolysis, acidosis, or asphyxia,
use one line lower (gestation below) until <1000g
If gestational age is accurate, rather use gestational age (weeks) than body weight

- Note: 1. Infants who present with TSB above threshold should have Exchange done if the TSB is not expected to be below the threshold after 6 hrs of intensive phototherapy.
2. Immediate Exchange is recommended if signs of bilirubin encephalopathy and usually also if TSB is >85 µmol/L above threshold at presentation
3. Exchange if TSB continues to rise >17 µmol/L/hour with intensive phototherapy



Total Serum Bilirubin (TSB) results and actions taken:

TSBs should be taken daily when under phototherapy and at least 6hrly if approaching exchange levels.

Phototherapy lights (tubes) should be changed every 1000 hrs or every 3-6months depending on usage. Lights must be as close as possible to the baby.

Ensure baby is well hydrated.

Date Taken									
Time Taken									
TSB									
Conjugated TSB									
Phototherapy line									
Exchange line									
Hours on photo timer									
All lights working Y / N									
Action									
Date Retrieved									
Time Retrieved									
Sign									
Print									

ASSESSMENT AND CARE DESCRIPTIONS FOR NEONATAL GENERAL/HIGH CARE

Record the letter of the word that best describes the assessment of the baby in each relevant column in the assessment chart.

CONDITION		EYES		SKIN, MOUTH, CORD & BUTTOCKS			WOUND		ACTIVITY		SEIZURES				
W	Well	C	Clear	H	Healthy	N	Necrosis	H	Healthy	A	Appropriate	A	Apnoea	F	Fisting
S	Stable	R	Red	BR	Bruised	MP	Moist Pink	G	Granulating	J	Jittery	Fo	Focal	C	Cycling
I	Improving	P	Purulent discharge	R	Red	D	Dry / Cracked	S	Sloughy	I	Irritable	G	Generalised	T	Tonic
U	Unstable			PA	Pressure area	T	Thrush	E	Exuding	S	Seizures	S	Staring	C	Clonic
ES	Emergency signs	G	Green discharge	P	Peeling	F	Flare (Umbilicus)	I	Infected	L	Lethargic	M	Mouthing	K	Kernicteric
C	Critical	J	Jaundiced	RA	Rash	BL	Bleeding	N	Necrotic	U	Unresponsive	P	Prolonged >3mins	B	Brief <3mins
D	Dying	S	Swollen	L	Lesion	CO	Cord off	S	Surgical						
				O	Oedema	PO	Pitting oedema								
SEIZURE Mx		GLUCOSE Mx		EYE/SKIN/ BUTTOCK CARE		POSITION		PROBE		PHOTOTHERAPY		PAIN Mx		VISITORS	
S	Spontaneous recovery	B	3ml/kg 10% dext.	A	Aqueous cream	RL	Right lateral	R	Right	S	Single	S	Sucrose	M	Mother
		C	Cocktail	V	Vaseline	LL	Left Lateral	L	Left	D	Double	NNS	Non Nutritive sucking	F	Father
ST	Stimulated	IB	Insulin bolus	B	Barrier cream	P	Prone	A	Arm	PB	Photo-blanket			G	Grandparents
B	Bagged	II	Insulin infusion	ZC	Zinc & castor oil	S	Supine	F	Foot			C	Containment	S	Siblings
L	Lorazepam	5% D	5% Dextrose	M	Mycostatin			H	Hand			A	Analgesia	O	Other
M	Midazolam			VO	Vegetable oil			E	Ear						
P	Phenobarbitone			S	Saline										
				CH	Chloromycetin										
COLOUR		PERFUSION		DISTRESS		O ₂ METHOD		SECRETIONS		RESPIRATORY Mx		ABBREVIATIONS			
P	Pink	WP	Warm & Pink	N	Nil	RA	Room air	CL	Clear	S	Spontaneous recovery	BP	Blood pressure		
PA	Pale	C	Cold	SS	Substernal R.	OA	Oral airway	CR	Creamy			FiO ₂	Fraction of Inspired O ₂		
D	Dusky	Pa	Pale	SC	Subcostal R.	NP	Nasal prongs	W	White	FiO ₂ ↑	Oxygen increased	MAP	Mean Airway Pressure		
R	Red	Pr	Pressure area	IC	Intercostal R.	HB	Head box	Y	Yellow	FiO ₂ ↓	Oxygen decreased	Mx	Management		
PC	Periph. Cyanosis	Ne	Necrosis	TT	Tracheal tug	NC	Nasal catheter	G	Green	FL ↑	Flow increased	N	No		
CC	Central Cyanosis	M	Mobile	NF	Nasal flare	nCPAP	Nasal continuous positive airways pressure	S	Scanty	ST	Stimulated	NPO	Nil per os		
J	Jaundiced	CRT	Capillary Refill time	G	Grunting			M	Moderate	B	Bagged	O ₂	Oxygen		
M	Mottled			M	Mild			L	Large	C	Compressions	PRN	As required		
				N	Normal ≤ 3 secs			MD	Moderate	Lo	Loose			PEEP	Positive End Expiratory Pressure
		PL	Prolonged >3 secs	S	Severe			T	Thick			R.	Recession		
SUCKING		ABDOMEN		SOUNDS		URINE		STOOLS		ASPIRATES		SaO ₂	Haemoglobin oxygen saturation		
NA	Not applicable	S	Soft	P	Present	Y	Yellow	M	Meconium	C	Clear	Y	Yes		
S	Strong	D	Distended	D	Decreased	O	Orange	SY	Soft yellow	M	Milky				
L	Latching	T	Tense	A	Absent	CL	Cloudy	G	Green	B	Blood stained				
W	Weak	R	Red			P	Pink	L	Loose	BS	Bile stained				
N	No effort	SC	Scaphoid			R	Red	B	Bloody	R	Returned				
NNS	Non-nutritive Sucking	BL	Visible bowel loops					C	Changing	D	Discarded				
								O	Offensive						
								D	Diarrhoea						
FEEDS		SITE				IV CONDITION		FLUID		ACTION					
EBM	Expressed breast milk	RA/H	Right arm/hand		CVC	Central venous Catheter		H	Healthy	NNL	Neonatalyte		DS	Dressing soiled	
PNAN	Prenan	LA/H	Left arm/hand					L	Leaking	TPN	Total parenteral nutrition		DC	Dressing changed	
PTB	Put to breast	RL/F	Right leg/foot		A	Arterial		P	Puffy	RL	Ringers lactate		LR	Line removed	
NGT	Nasogastric tube	LL/F	Left leg/foot		V	Venous		PH	Phlebitis	5% C	5% Dextrose cocktail		LRE	Line resited	
NJT	Nasojejunal tube	UAC	Umbilical arterial catheter		SL	Short line		I	Infiltrated	15% C	15% Dextrose cocktail		HS	Hub scrubbed	
NPO	Nil per os	UVC	Umbilical venous catheter					B	Blocked	½ NaCl	0.45% Saline				
FM85	Breast milk fortifier	S	Scalp					WPM	Warm, pink, mobile	SB	Sodium bicarbonate				