University Hospitals of Derby and Burton NHS Foundation Trust

Early Neonatal Jaundice – Maternity & Neonatal/Paediatric Full Clinical Guideline

UHDB/Neonatal/04:21/N6

Contents

1. Introduction

Jaundice is a very common problem in both term and preterm infants because the hepatic conjugating system is immature at birth. Jaundice occurring for this reason alone has been termed "physiological jaundice". Approximately 60% of term and 80% of preterm babies develop jaundice in the first week of life. About 10% of breastfed babies are still jaundiced at one month of age. The majority of jaundice in this age group is physiological. There are some important pathological causes of jaundice which need to be detected. Very high level of unconjugated bilirubin is potentially toxic and can cause both short term and long term neurological dysfunction (e.g. kernicterus).

This guideline is based on NICE recommendations and covers detection and management of neonatal jaundice.

2. Purpose and Outcome

To identify babies at risk of hyperbilirubinaemia and to treat babies with hyperbilirubinemia appropriately.

3. Abbreviations-

TCB	Transcutaneous Bilirubinometer
SBR	Serum Bilirubin
IVIG	Intravenous Immunoglobulin
DAT	Direct antiglobulin test
PAU	Paediatric Assessment Unit
CED	Children’s Emergency Department

≥	Greater than or equal to
≤	Less than or equal to
>	Greater than
<	Less than

4. Key Responsibilities and Duties

All staff involved in the care of babies are expected to observe and assess them as described in the guideline and give support to the family as necessary.

Both maternity & neonatal/paediatric staffs have a responsibility to ensure these babies received timely treatment in the case of raised bilirubin levels

5. Documentation

Please ensure all assessments and individual plans of care are documented clearly and contemporaneously in the appropriate records including both badger notes (on badger net) and neonatal records. Please provide Patient Information leaflet (PIL) to parents (Appendix D)

6. Transcutaneous Bilirubinometer (TCB)

The Transcutaneous Bilirubinometer (TCB) is a non-invasive tool which allows assessment of bilirubin, in new born babies more accurately as compared visual assessment. Transcutaneous bilirubinometer (TCB) can be used in babies ≥ 35 we eks gestation at birth and >24hours of age. The accuracy of transcutaneous bilirubinometers has been adequately demonstrated in term babies up to bilirubin levels of < 250 micromol/TCB reading of ≥250micromol/litre, will require a SBR level to verify the result.

7. Risk Factors

The following babies are at increased risk of significant hyperbilirubinaemia:

1. Gestational age <38 weeks
2. Previous sibling with neonatal jaundice requiring phototherapy
3. Intention to exclusively breast feed
4. Visible jaundice <24 hours old

Babies with above mentioned risk factors, should receive visual inspection by a health care professional during the first 24-48 hours of life. All babies should be examined for jaundice at every opportunity especially within the first 72 hours of birth by a health professional.

Provide verbal and written information (Patient Information leaflet, ***Appendix D***) to parents, regarding assessment and management pathway for early neonatal jaundice, prior to discharge from birthing suit, hospital or following home birth.

8. Assessment of Jaundice - *(Appendix A)*

Visual inspection: check the baby in bright and preferably natural light away from yellow or green background. Examination of the sclera, gums and blanched skin is useful across all skin tones. Clinical recognition and assessment of jaundice can be difficult in babies with dark skin tones. In dark skinned infants, jaundice is detectable over the conjunctiva and mucous membranes

8.1 Unwell Babies with Jaundice – need urgent medical review and SBR levels within 2 hours, if any of the below apply:

- < 24hours of age

- Gestational age < 35weeks
- Unwell babies
- Poor feeding
- Babies with Abnormal Observation (Drowsy and Floppy babies)

8.2 Well Babies with Jaundice

Assessment of jaundice in well babies ≥35 weeks of gestation and >24 hours of age, can be made visually, although TCB is recommended in babies mentioned below (8.2.2).

TCB is not available currently to community midwifery team in Burton/Staffordshire, hence these babies may need TCB and/or SBR levels checking at their local hospital, with in next 6 hours of visual detection Please consider additional impact/delay in assessing jaundice level, whilst advising parents regarding hospital referral.

8.2.1. Well babies with mild jaundice

Do not need TCB, if visual assessment is felt to be reliable by the assessor. Parents can be reassured, routine care and feeding advise/plan should be provided.

8.2.2. TCB is recommended (>35 weeks of gestation and >24 hours of age)

- In babies with pigmented/ coloured skin
- Babies with significant visual jaundice

TCB levels should be plotted on appropriate gestational age chart ***(Appendix C)*** **–**

- TCB plots ≥ treatment threshold line – Refer to CED/PAU for SBR & treatment of jaundice.
- TCB plots ≤ 50 µmol/l below the treatment line – Repeat TCB ideally within 6 hours or as soon as possible within next 12-24 hours
- TCB plots ≥ 50 µmol/l below the treatment threshold line – Routine care
- TCB of >250 µmol/l: refer to CED (RDH) or PAU (QHB) for serum bilirubin test

8.2.3. Serum Bilirubin is recommended if:

- Evidence jaundice in the first 24hrs of age
- Gestation < 35 weeks
- Transcutaneous bilirubinometer is not available.
- TCB levels > 250 micromols/liter
- Bilirubin levels (TCB/SBR) above treatment threshold and subsequent monitoring following phototherapy
- Suspected Conjugated hyperbilirubinemia i.e. liver disease, pre-exchange transfusion.

8.2.4 Do not use any of the following to predict significant hyperbilirubinaemia:

- Umbilical cord blood bilirubin level
- End-tidal carbon monoxide (ETCOc) measurement.

- Umbilical cord blood direct antiglobulin test (DAT) (Coombs' test).

9. Referral Pathway for Jaundiced Babies : ***(Appendix A)***

Jaundiced babies who are unwell and/or those with significant jaundice/TCB value plotting above the exchange transfusion range (on gestational age appropriate treatment threshold graph), should be referred to the hospital as soon as possible, within 2 hours. Well jaundiced babies with TCB value in phototherapy range should be referred to the hospital within 6 hours of initial assessment, for Sr. bilirubin and treatment of jaundice.

9.1 . Jaundiced Babies in Hospital (NICU, postnatal ward and paediatric ward) Measure bilirubin level (TCB and/or SBR), plot on gestational age appropriate treatment threshold graph (***Appendix C***) and treat accordingly. File the plotted graph in patients notes. Refer to ***Appendix-B*** for on-going management of hyperbilirubinemia.

9.2 Jaundiced Babies at Home –

Assessment and management of jaundiced babies, at home, please follow ***Appendix A***.

Jaundiced babies needing blood test for SBR levels and medical review -- should be referred to the paediatric doctors --

Hospital	Referral to	Telephone no.
Royal Derby Hospital --	Paediatric doctor in Children's Emergency Department (CED)	(01332) 786808
Queen's Hospital Burton	Oncall paediatric doctor in Paediatric assessment Unit (PAU)	via switchboard number – 01283 566333, bleep 625

10. Treatment Thresholds

10.1 Jaundice in the first 24 hours of life

This is usually due to haemolysis and/or infection. It should always be investigated immediately. Ensure an urgent medical review and Serum bilirubin level (within 2 hours). Plot SBR on gestational age appropriate chart and file in baby notes. Continue to measure SBR 6 hourly, until level is – static, below treatment threshold or dropping. When haemolysis is brisk, bilirubin levels may rise very quickly. Therefore, whist treating with continuous multiple phototherapy, the bilirubin levels should be checked 4-6 hourly (and blood cross matched, ready for exchange transfusion, if needed) until the SBR level is below the treatment threshold and/or stable/falling.

10.1.1 Causes

Rhesus haemolytic disease, ABO incompatibility, G6PD deficiency and other red cell enzyme deficiencies, hereditary spherocytosis, congenital infections, large concealed haemorrhage or septicaemia/other infections e.g. UTI

10.1.2 Clinical Examination

Assess clinical condition of the baby, look for anaemia, bruising, subgaleal haemorrhage, hepatosplenomegaly and signs of congenital infection.

10.1.3 Investigations --

Serum bilirubin, FBC, reticulocyte count, blood film, blood culture and CRP (if baby is clinically unwell), baby/mother's blood group and DAT. Further tests (sometimes required) may include G6PD screen in Afro Caribbean, Asians or Mediterranean patients and/or congenital infection screen.

10.2 Jaundice in babies > 24 hours (2^{nd} – 13^{th} day)

Physiological jaundice most commonly presents at this age.

- Assess baby and consider measuring bilirubin levels (TCB/SBR), ideally within 6 hours or as soon as possible within next 12-24 hours of suspected jaundice (***Appendix A*** and/or section 8)
- Plot (TCB/SBR) if measured, on gestational age appropriate threshold graphs (***Appendix C)*** and file in notes. I
- Interpret and manage hyperbilirubinemia using threshold graphs (***Appendix C)***
- TCB can be used up to 10 days of postnatal age, to assess jaundice. Although its unusual to need treatment for hyperbilirubinemia after 7 days of age in babies with no risk factors.

- Other investigations may be required depending upon the clinical condition and examination of the baby
- In babies with a gestational age of 37 weeks or more with jaundice lasting more than 14 days and in babies with a gestational age of less than 37 weeks with jaundice lasting more than 21 days, follow prolonged jaundice guidelines for further assessment – NIC ME 03 – Joint Derby and Burton.

Management of Hyperbilirubinemia *(Appendix B)*

11 Phototherapy

11.1 Starting Phototherapy --

Well babies ≥38 weeks of gestation, with TCB value ≤ 50 µmol/l below the phototherapy line, should have repeat TCB ideally within 6 hours or as soon as possible within next 12-24 hours. Serum bilirubin measurement is essential before starting phototherapy.

In babies who are clinically well, have a gestational age of 38 weeks or more and are more than 24 hours old, with bilirubin level that is below the phototherapy threshold by more than 50 micromol/litre on treatment threshold graphs, do not routinely repeat bilirubin measurement.

Do not use phototherapy in babies whose bilirubin does not exceed the phototherapy threshold levels in the threshold table and the treatment threshold graphs. Do not use fibreoptic phototherapy as first-line treatment for hyperbilirubinaemia in babies with a gestational age of 37 weeks or more. Ensure all phototherapy equipment is maintained and used according to the manufacturers' guidelines. Do not cover phototherapy with curtains, it can interfere with monitoring

11.2 Type of Phototherapy

Single phototherapy

Use conventional 'blue light' phototherapy or fibre optic phototherapy (in preterm), for treatment of significant hyperbilirubinemia, unless bilirubin level is rising rapidly (>8.5 micromols/litre per hour) or bilirubin level is within 50 micromol/litre below the treatment threshold for which exchange transfusion is indicated after 72 hours of age.
Encourage short breaks (of up to 30 minutes) for breastfeeding, nappy changing and cuddles, continue lactation/feeding support. Do not give additional fluids or feeds routinely, but Maternal expressed milk can be given as additional feeds if indicated.

Multiple Phototheray

Initiate and continue multiple phototherapies, to treat babies if following apply:

- Rapidly rising bilirubin (>8.5 micromol/litre per hour)
- Bilirubin level ≤ 50 micromol/litre below the threshold for which exchange transfusion is indicated after 72 hours of age
- Bilirubin level fails to respond to single phototherapy and continues to rise

There is limited evidence of benefit in using more than 3 phototherapy units at any time, it is more important to ensure maximum surface area is exposed during phototherapy. Consider stepping down gradually to single phototherapy, once SBR levels dropped ≥ 50 µmol/l below the exchange transfusion.

11.3 Care during Phototherapy

Place baby in supine if possible. Ensure treatment applied to maximum area of skin and Provide eye covering. Monitor input-output charting and daily weight (if possible),

hydration status and temperature 4 hrly. Encourage parents to interact and care for their baby. Using clinical judgement, consider encourage short breaks (up to 30 mins) for breast feeding, nappy changing and cuddles. Continue lactation/feeding support. Do not give additional fluids or feeds routinely. If on multiple phototherapy do not interrupt and continue administering IV/enteral NG feeds, however, consider minimum interruption of phototherapy for oral feeding. Watch for disruption of mother/infant bonding, hypo/hyperthermia, increase in trans-epidermal water loss, loose stools and skin rashes.

11.4 Monitoring during Phototherapy ***(Appendix B)***

Repeat SBR measurement 4-6 hours after initiating phototherapy. Once serum bilirubin levels are stable or falling, SBR monitoring can be dropped to 6-12 hourly.

11.5 Discontinuation of Phototherapy

Discontinue phototherapy once the SBR level is > 50 micromol/litre below the treatment threshold graph (in Appendix C). Check for rebound hyperbilirubinaemia by repeating bilirubin levels at 12-18 hours after stopping phototherapy (babies do not necessarily have to remain in hospital for this)

12. Intravenous Immunoglobulin (IVIG)

Use IVIG (500mg/kg over 4 hours) as an adjunct to continuous multiple phototherapy in cases of Rhesus and/or ABO haemolytic disease, when SBR levels continue to rise > 8.5 micromol/litre per hour. All requests for IVIG require completion of an IVIG form found in **(Appendix E)** below, this needs to be completed in order for pharmacy to issue the IVIg

Live vaccines (e.g. rotavirus and BCG) should be avoided for 3 months following administration of IVIG as the efficacy may be impaired. Ensure this is clearly documented in the baby's red book if possible or in the discharge summary and parents are aware **Click here for full guideline**

13. Exchange Transfusion

Babies with hyperbilirubinaemia are at increased risk of developing kernicterus,if they have any of the following:

- Serum bilirubin level >340 micromol/litre in term babies.
- Rapidly rising bilirubin levels > 8.5 micromol/litre per hour.
- Clinical features of acute bilirubin encephalopathy.

These babies require **urgent escalation of care** to the neonatal/paediatric service, if not already referred.

Exchange Transfusion:

Use a double-volume exchange transfusion to treat babies – SBR levels indicate, it's a necessity and/or babies with acute clinical signs of acute bilirubin encephalopathy. Maintain continuous multiple phototherapy, following exchange transfusion and measure SBR levels, 2 hours after exchange transfusion. Treat on going hyperbilirubinemia, according to threshold tables and graphs.

For details regarding exchange transfusion see Network Exchange transfusion guidelines WC/PN/52N Neonatal Jaundice (Including Exchange Transfusion) – Burton Site only Click here to open full guideline

14. Follow up :

- Babies with physiological jaundice should be monitored for jaundice as above, but do not need routine outpatient medical follow up, unless there are other concerns.
- Babies with Haemolytic Jaundice needing treatment will need the following :

➢ Prescribe Folic Acid 250 microgram/Kg/day for 3 months, to be commenced once on full feeds.
➢ Check Hb at two weeks, consider repeat Hb if concern.
➢ Medical follow up may be needed in 6-8 weeks from discharge

A joint Exchange Transfusion guideline has nearly been completed and will be adopted in the coming weeks and will replace the 2 single site guidelines above

15. Monitoring Compliance and Effectiveness

Monitoring requirement	To review 1% of cases where a baby has been treated for Jaundice
Monitoring method	Retrospective case note review
Report prepared by	Auditor
Monitoring report sent to:	Maternity Risk Group
Frequency of report	As per agreed audit forward programme

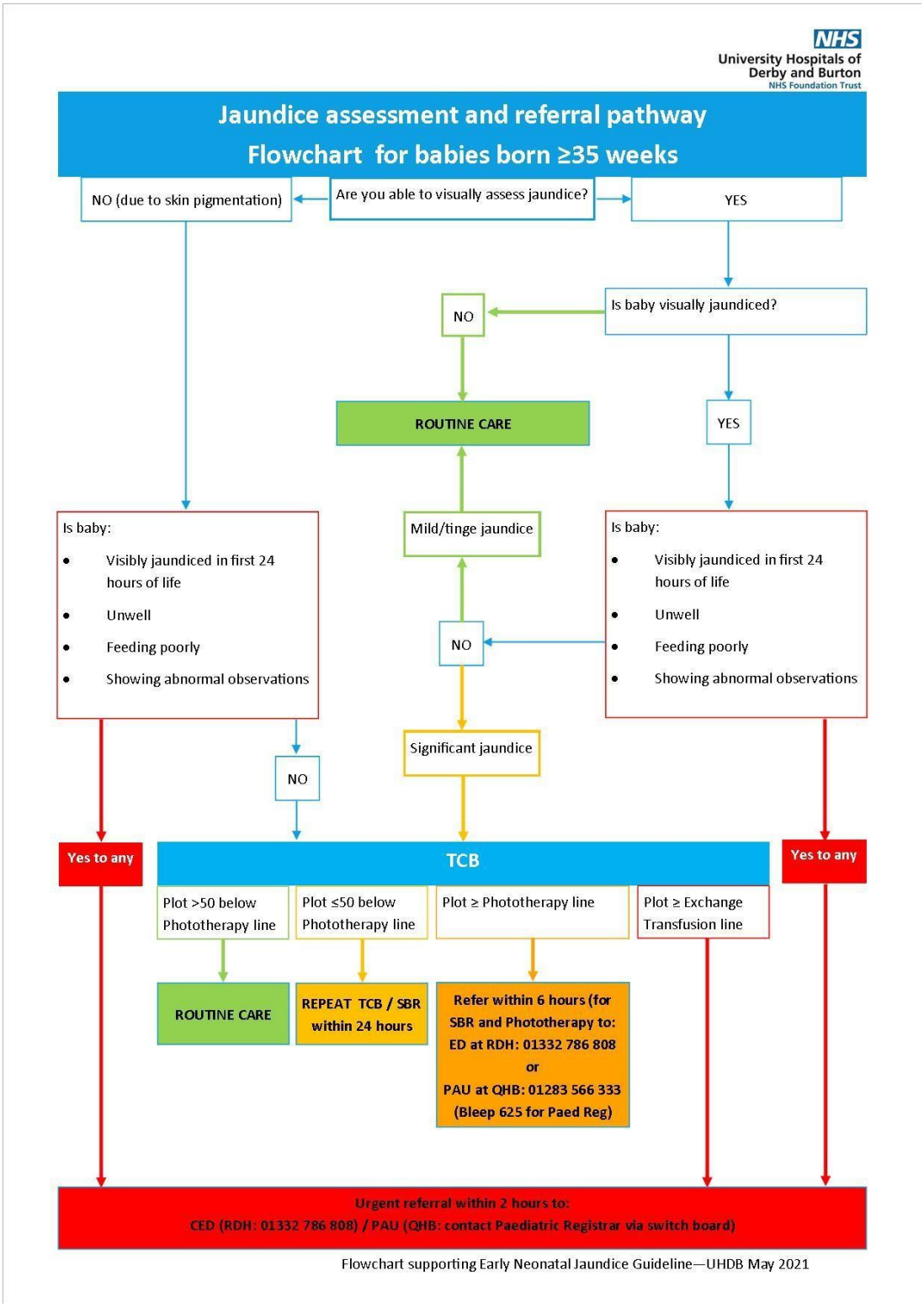
16. References

NICE Guidelines – National Institute for Health and Clinical Excellence; Neonatal Jaundice; Clinical Guideline CG98; May 2010

Kaplan M and Hammerman C. American Academy of Pediatrics guidelines for detecting neonatal hyperbilirubinaemia and preventing kernicterus. Arch Dis Child. Fetal Neonatal Ed.2005;90:F448-F449

Lee HC, Fang SB, Yeung CY and Tsai JD. Urinary tract infections in infants: comparison between those with conjugated vs unconjugated hyperbilirubinaemia. Ann Trop Paediatr 2005;25(4):277-82

Appendix A

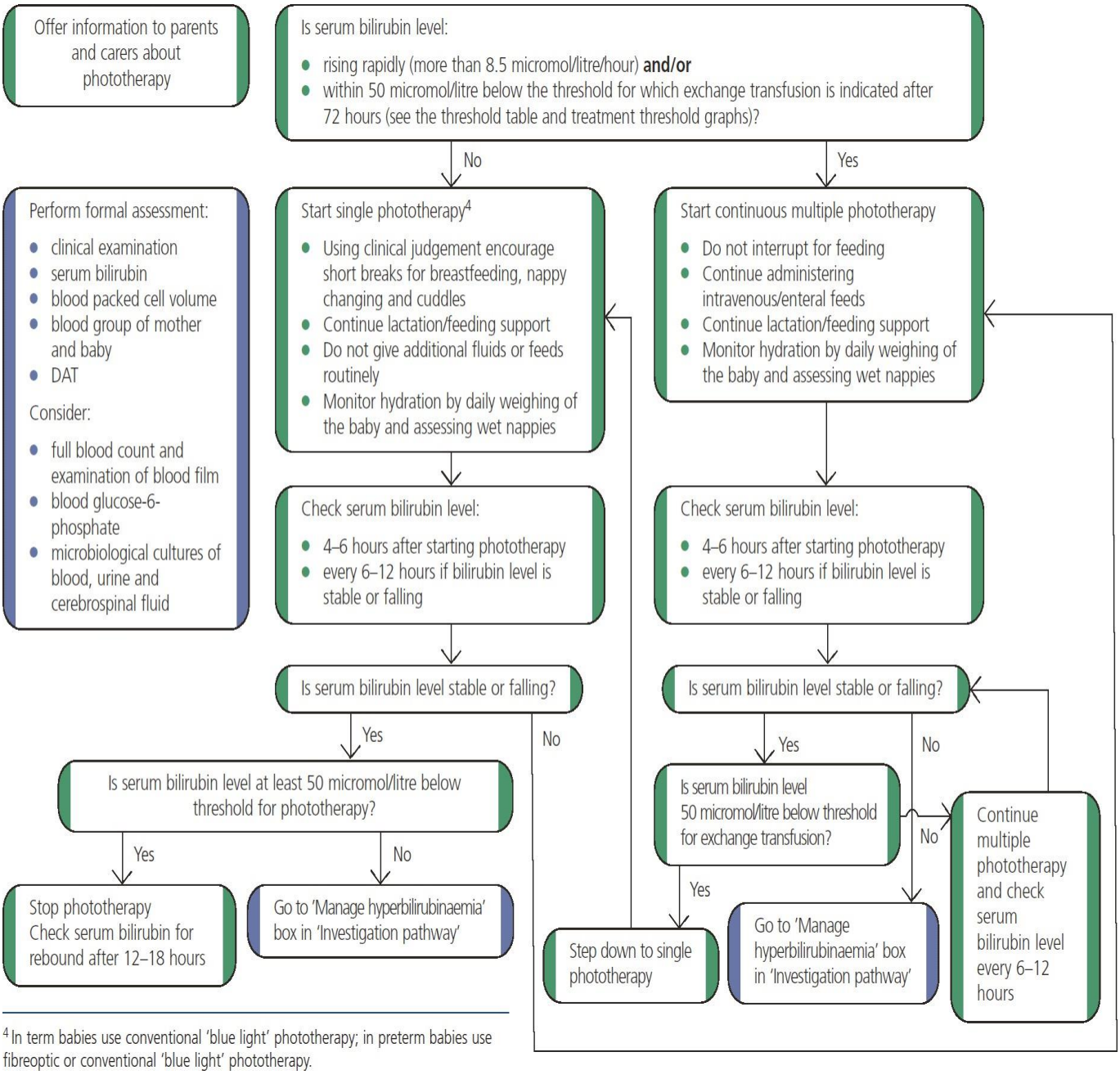


Flowchart supporting Early Neonatal Jaundice Guideline—UHDB May 2021

Appendix B

Phototherapy and Monitoring

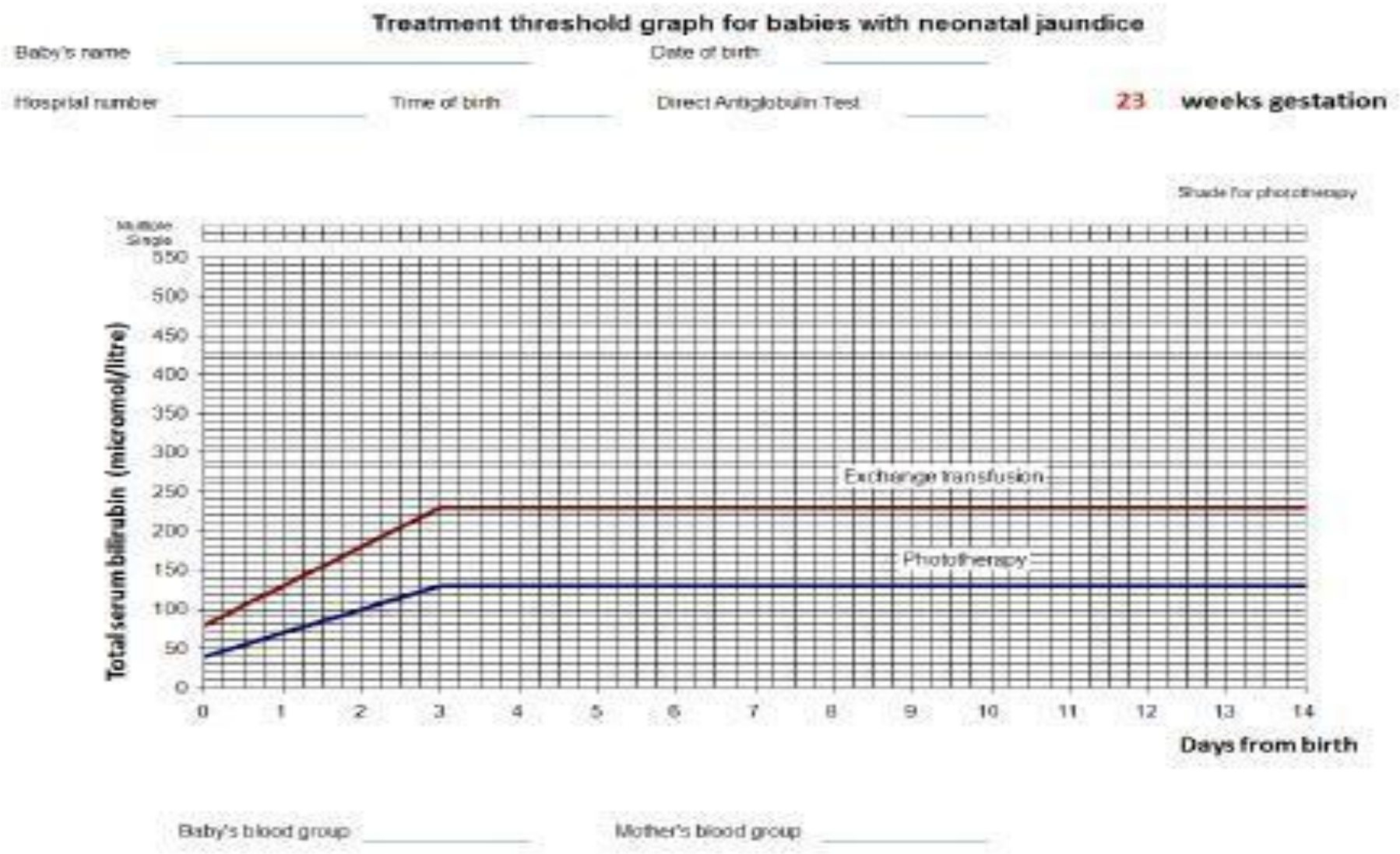
Phototherapy pathway



[4] In term babies use conventional 'blue light' phototherapy; in preterm babies use fibreoptic or conventional 'blue light' phototherapy.

APPENDIX C

Treatment Threshold Graphs for gestations age

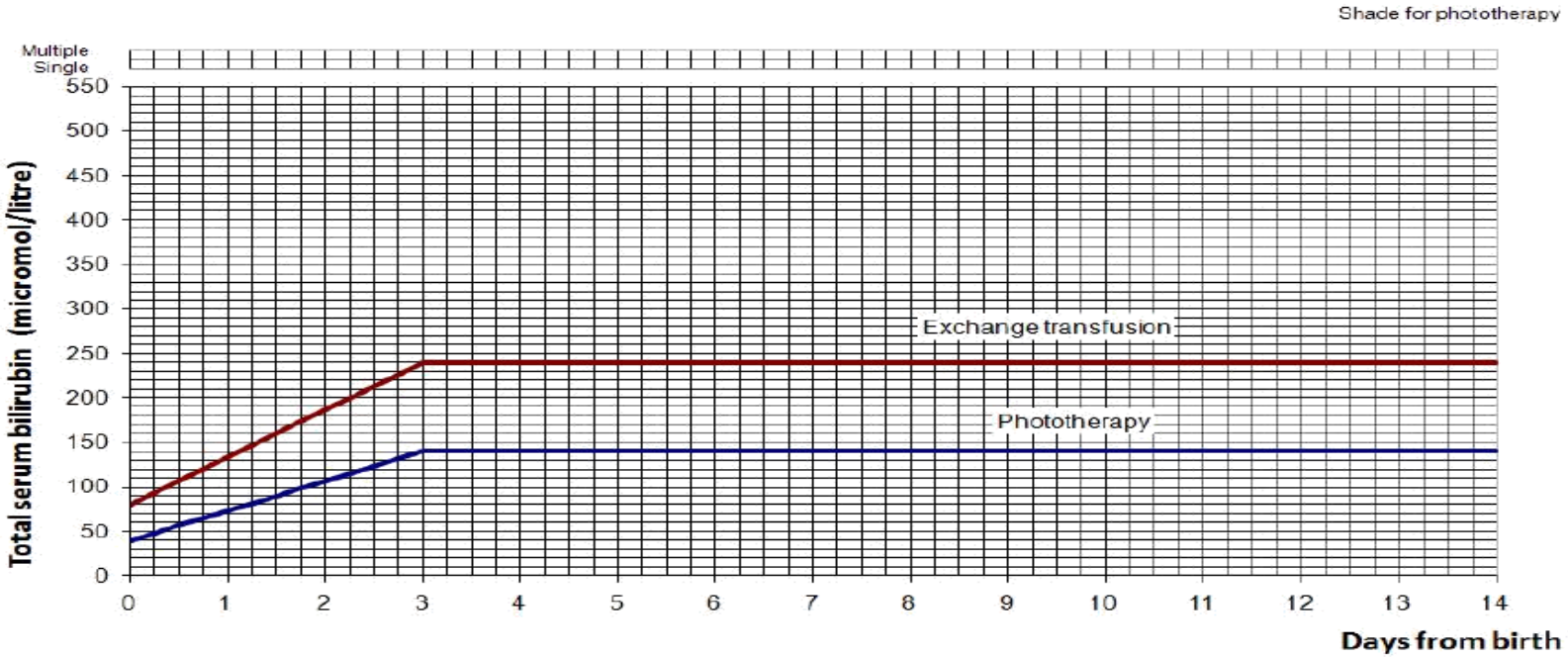


APPENDIX C

Treatment threshold graph for babies with neonatal jaundice

Baby's name _____ Date of birth _____

Hospital number _____ Time of birth _____ Direct Antiglobulin Test _____ **24** **weeks gestation**



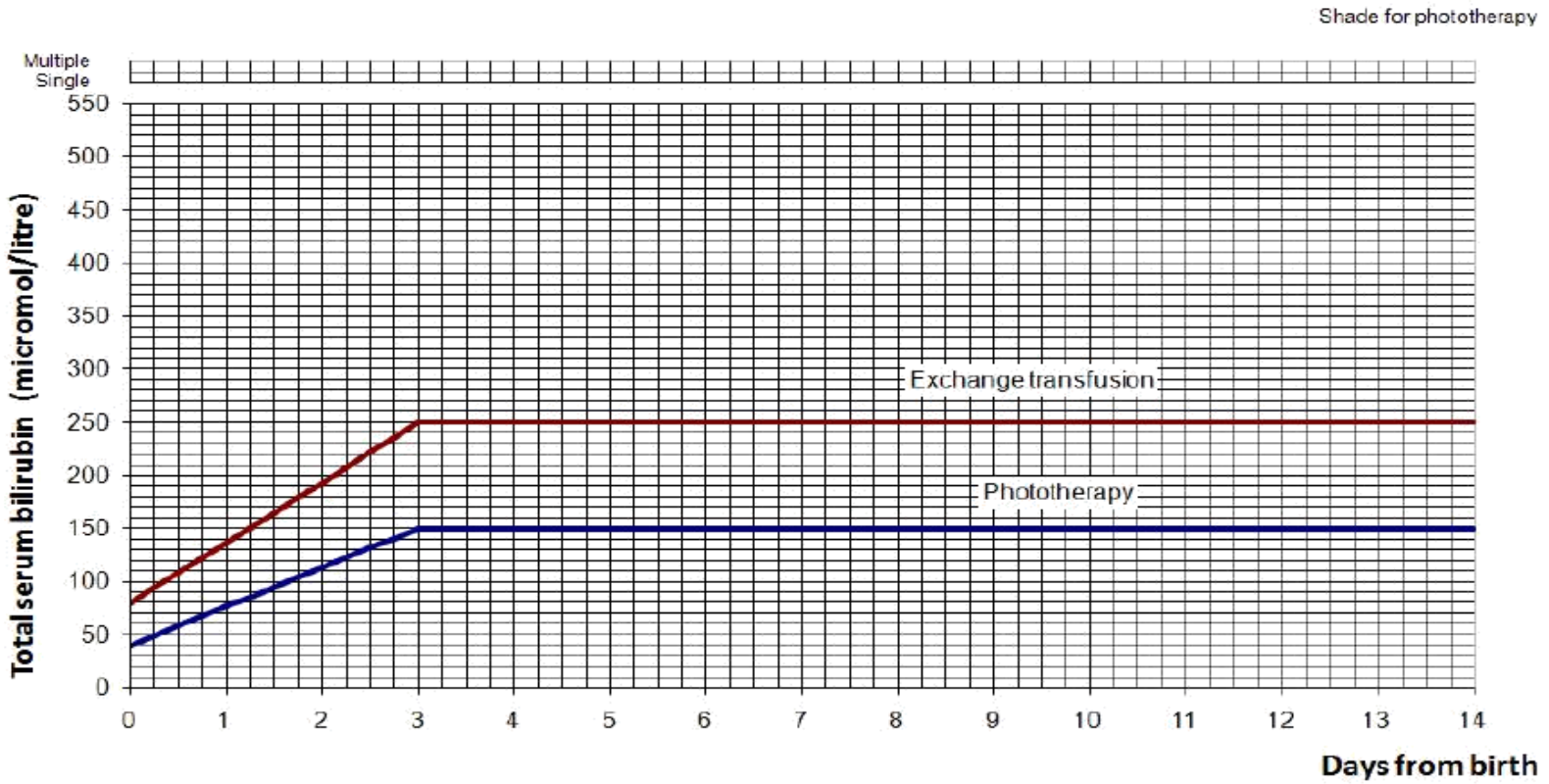
Baby's blood group _____ Mother's blood group _____

APPENDIX C

Treatment threshold graph for babies with neonatal jaundice

Baby's name _____ Date of birth _____

Hospital number _____ Time of birth _____ Direct Antiglobulin Test _____ **25** **weeks gestation**



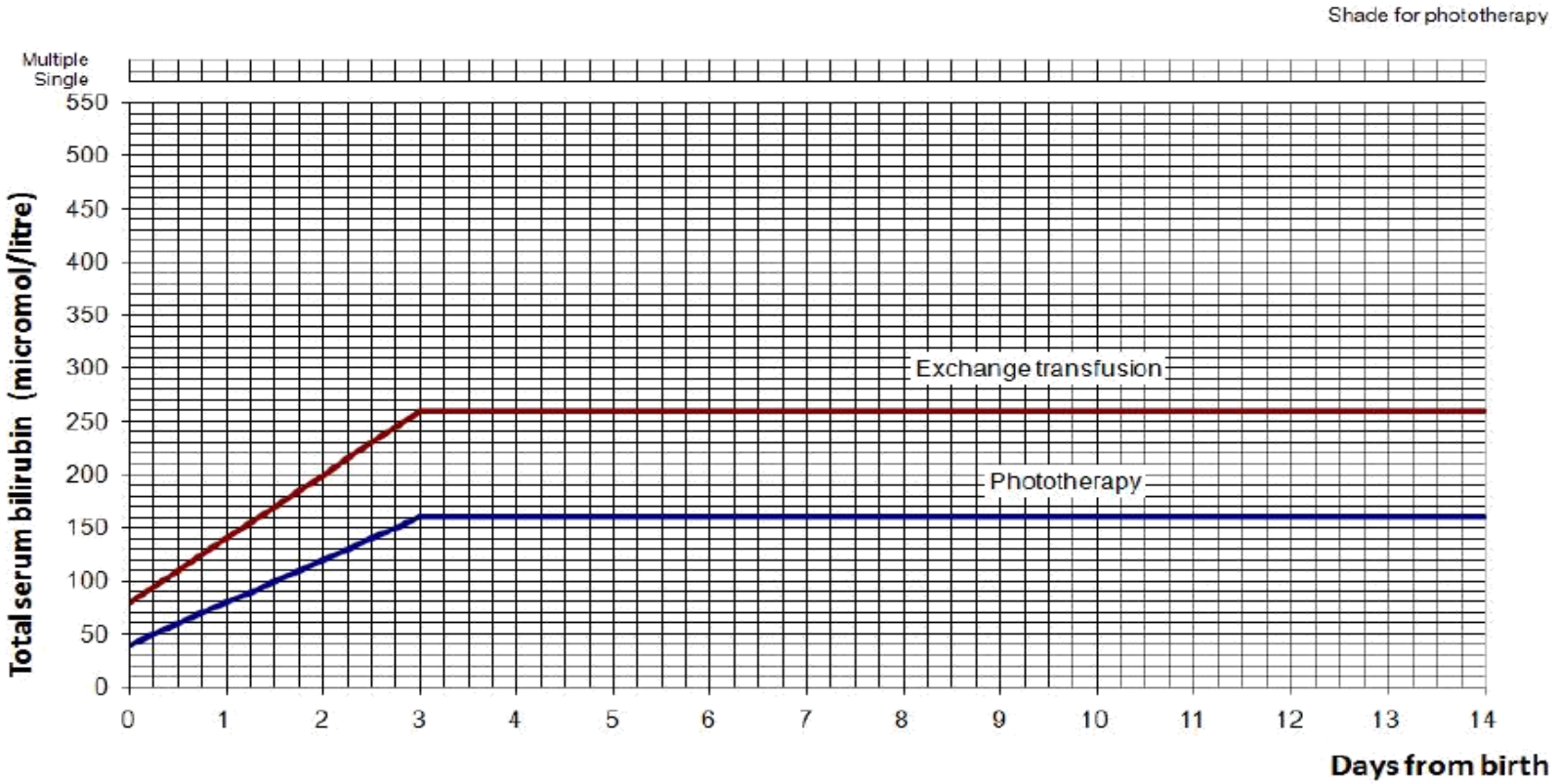
Baby's blood group _____ Mother's blood group _____

APPENDIX C

Treatment threshold graph for babies with neonatal jaundice

Baby's name _____ Date of birth _____

Hospital number _____ Time of birth _____ Direct Antiglobulin Test _____ **26** **weeks gestation**



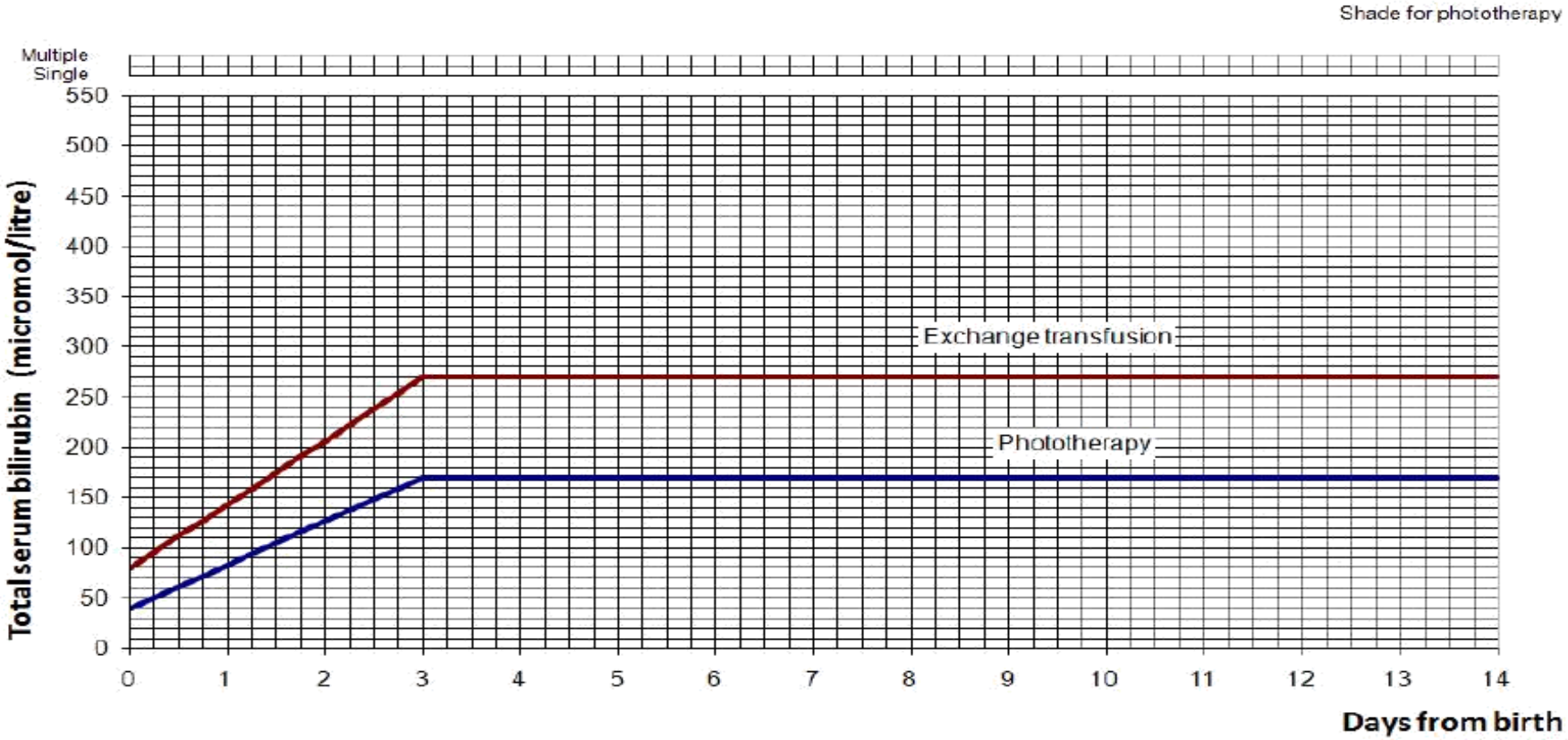
Baby's blood group _____ Mother's blood group _____

APPENDIX C

Treatment threshold graph for babies with neonatal jaundice

Baby's name _____ Date of birth _____

Hospital number _____ Time of birth _____ Direct Antiglobulin Test _____ **27** **weeks gestation**



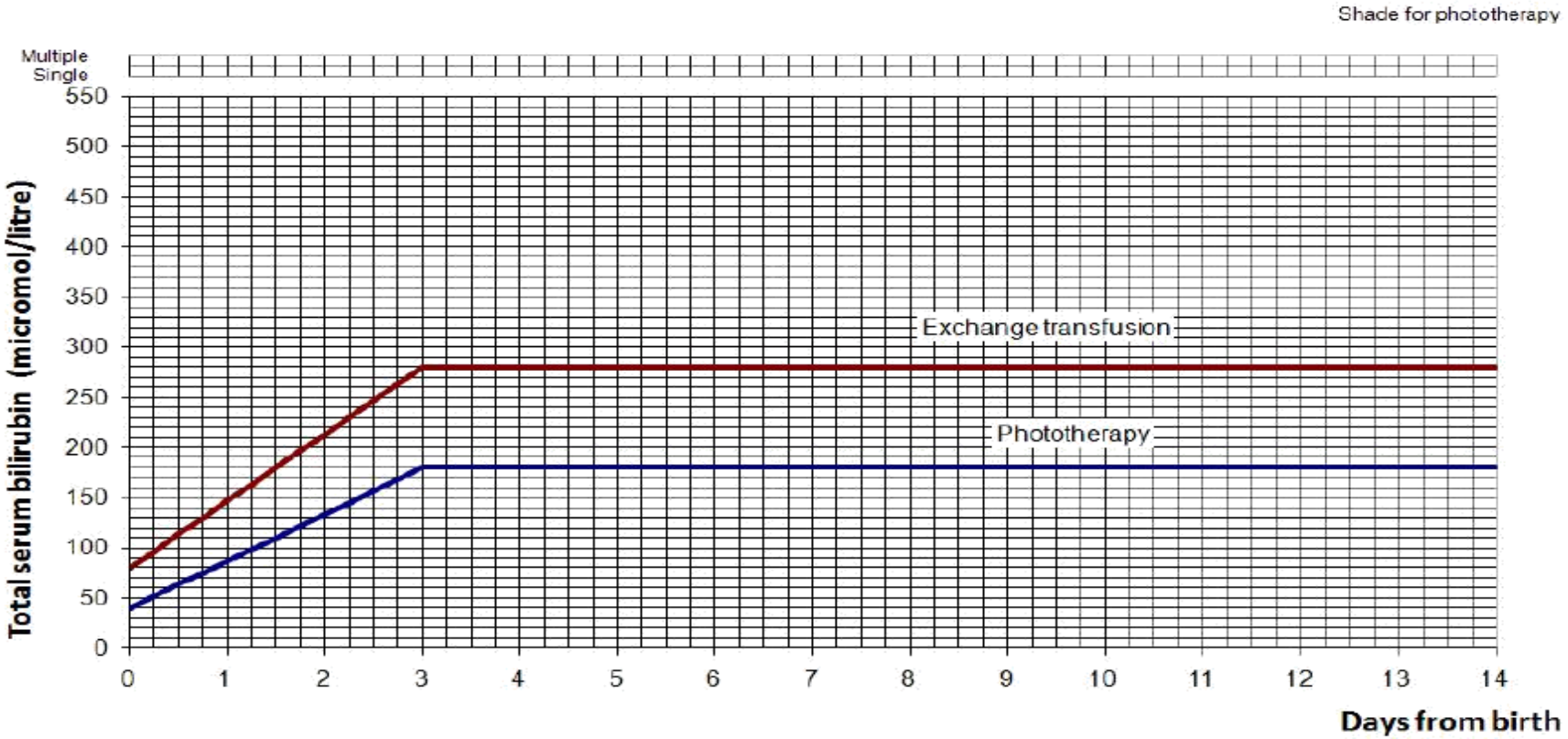
Baby's blood group _____ Mother's blood group _____

APPENDIX C

Treatment threshold graph for babies with neonatal jaundice

Baby's name _____ Date of birth _____

Hospital number _____ Time of birth _____ Direct Antiglobulin Test _____ **28** **weeks gestation**



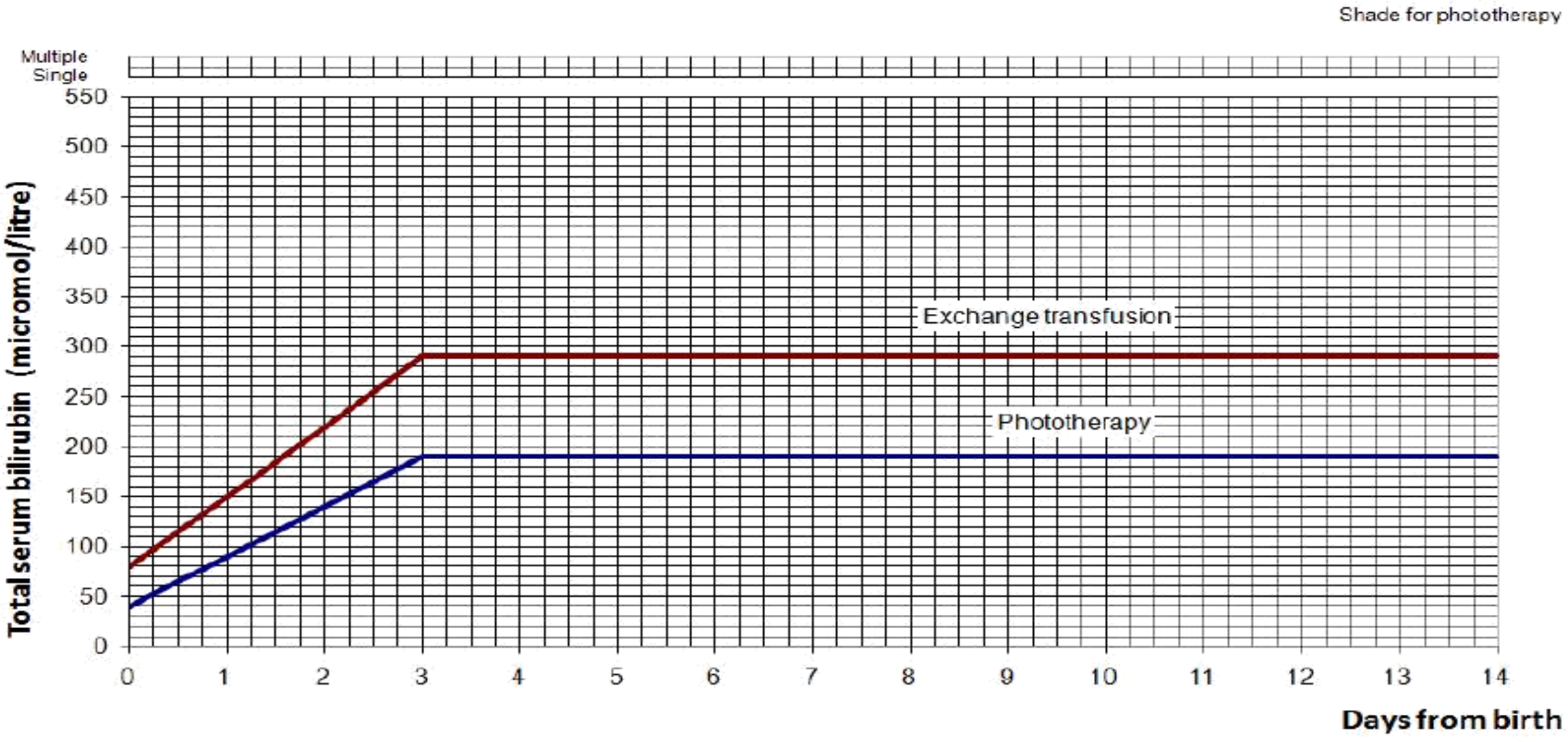
Baby's blood group _____ Mother's blood group _____

APPENDIX C

Treatment threshold graph for babies with neonatal jaundice

Baby's name _____ Date of birth _____

Hospital number _____ Time of birth _____ Direct Antiglobulin Test _____ **29** **weeks gestation**



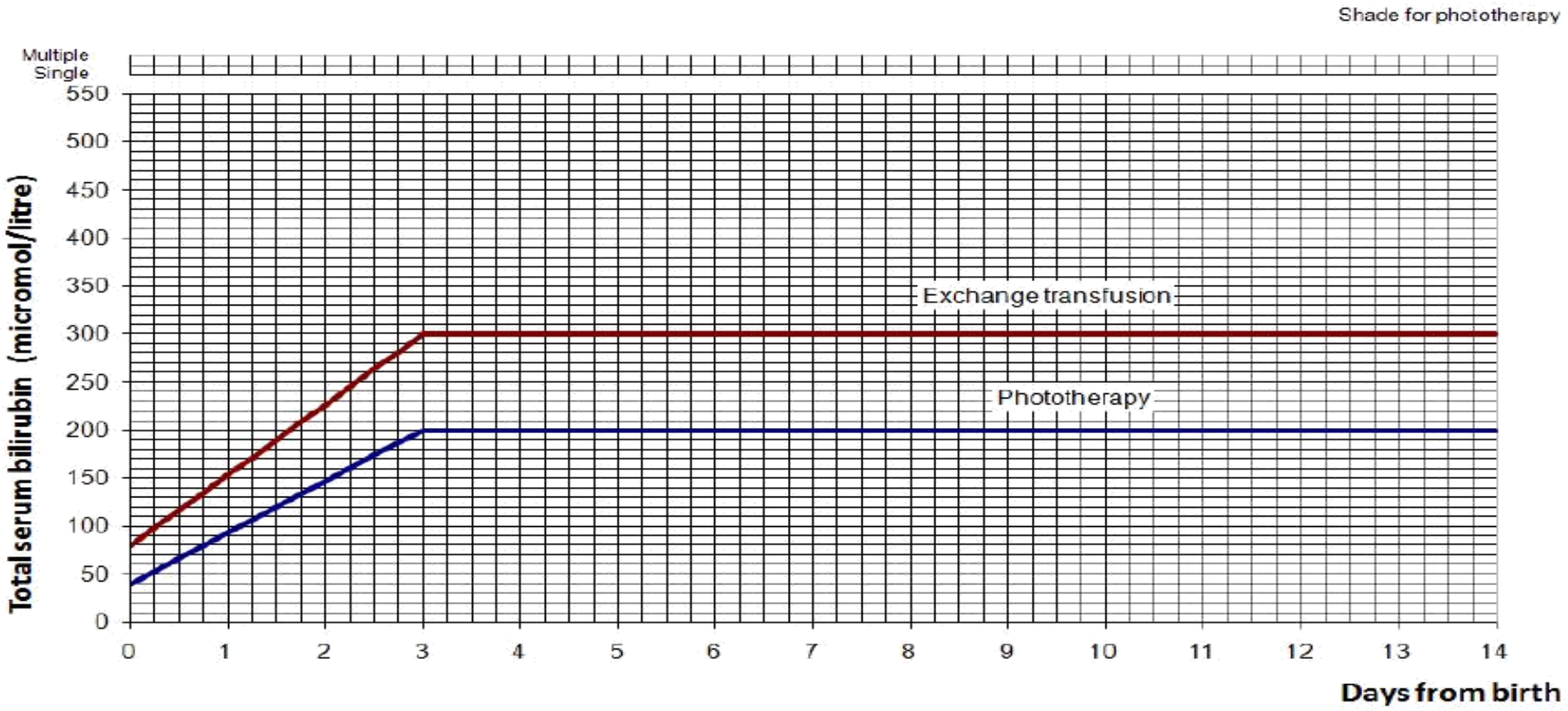
Baby's blood group _____ Mother's blood group _____

APPENDIX C

Treatment threshold graph for babies with neonatal jaundice

Baby's name _____ Date of birth _____

Hospital number _____ Time of birth _____ Direct Antiglobulin Test _____ **30** **weeks gestatio**



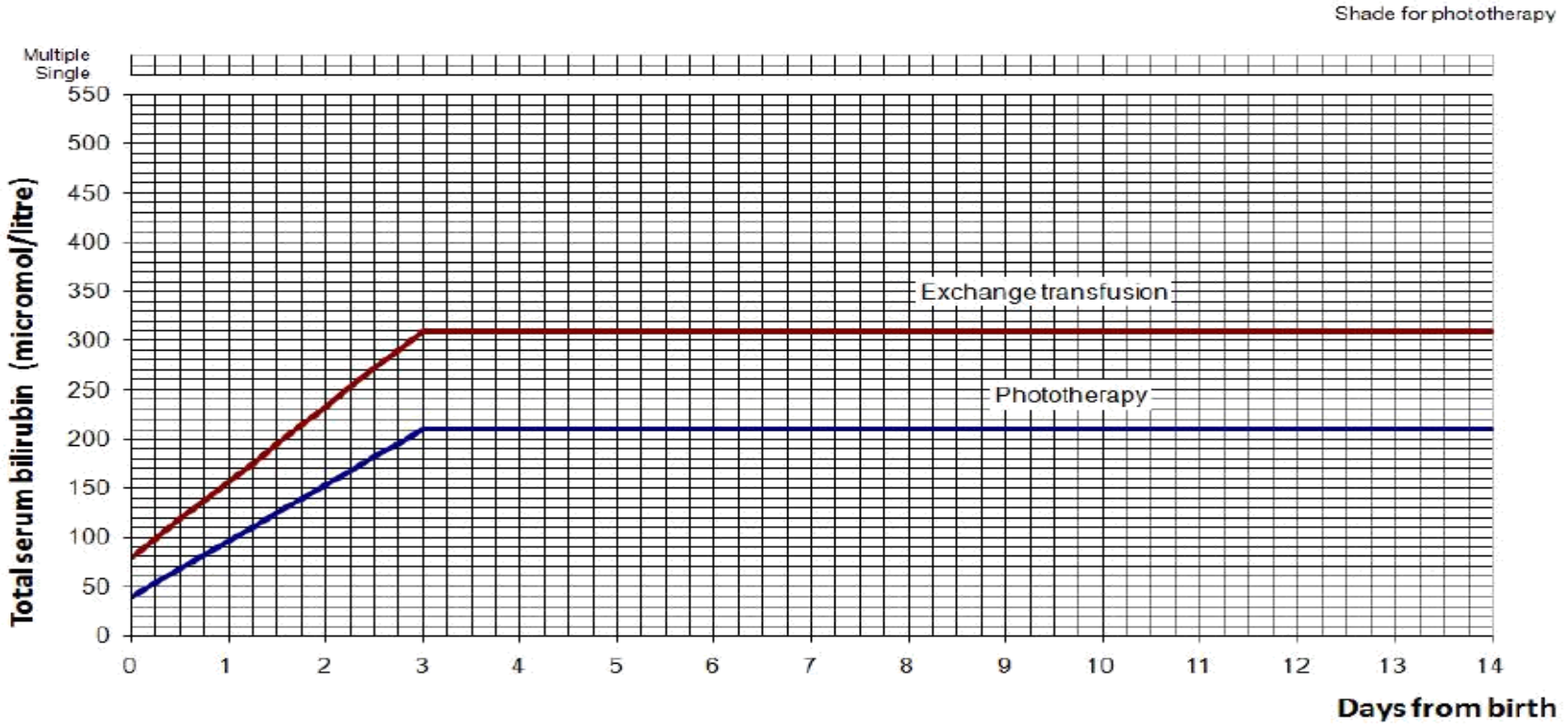
Baby's blood group _____ Mother's blood group _____

APPENDIX C

Treatment threshold graph for babies with neonatal jaundice

Baby's name _____ Date of birth _____

Hospital number _____ Time of birth _____ Direct Antiglobulin Test _____ 31 **weeks gestation**



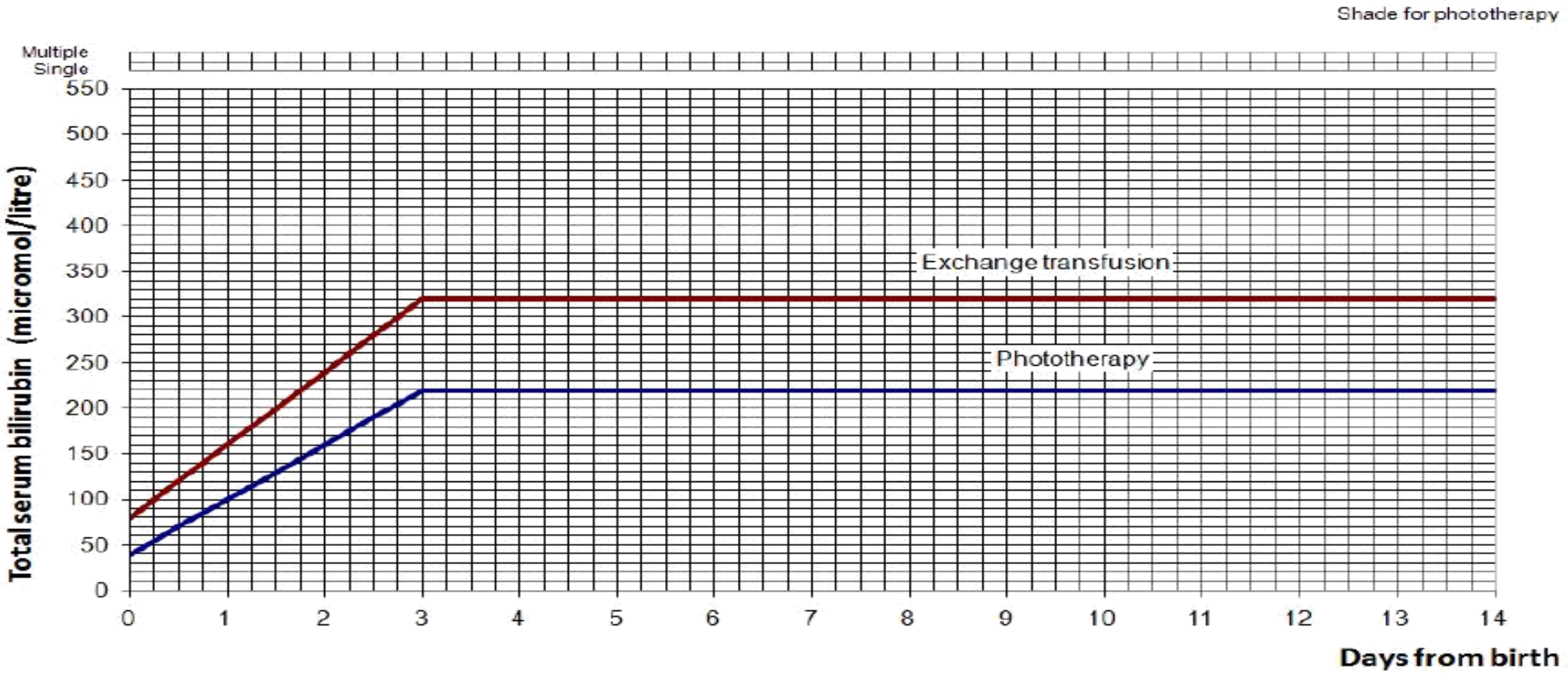
Baby's blood group _____ Mother's blood group _____

APPENDIX C

Treatment threshold graph for babies with neonatal jaundice

Baby's name _____ Date of birth _____

Hospital number _____ Time of birth _____ Direct Antiglobulin Test _____ **32** **weeks gestatio**



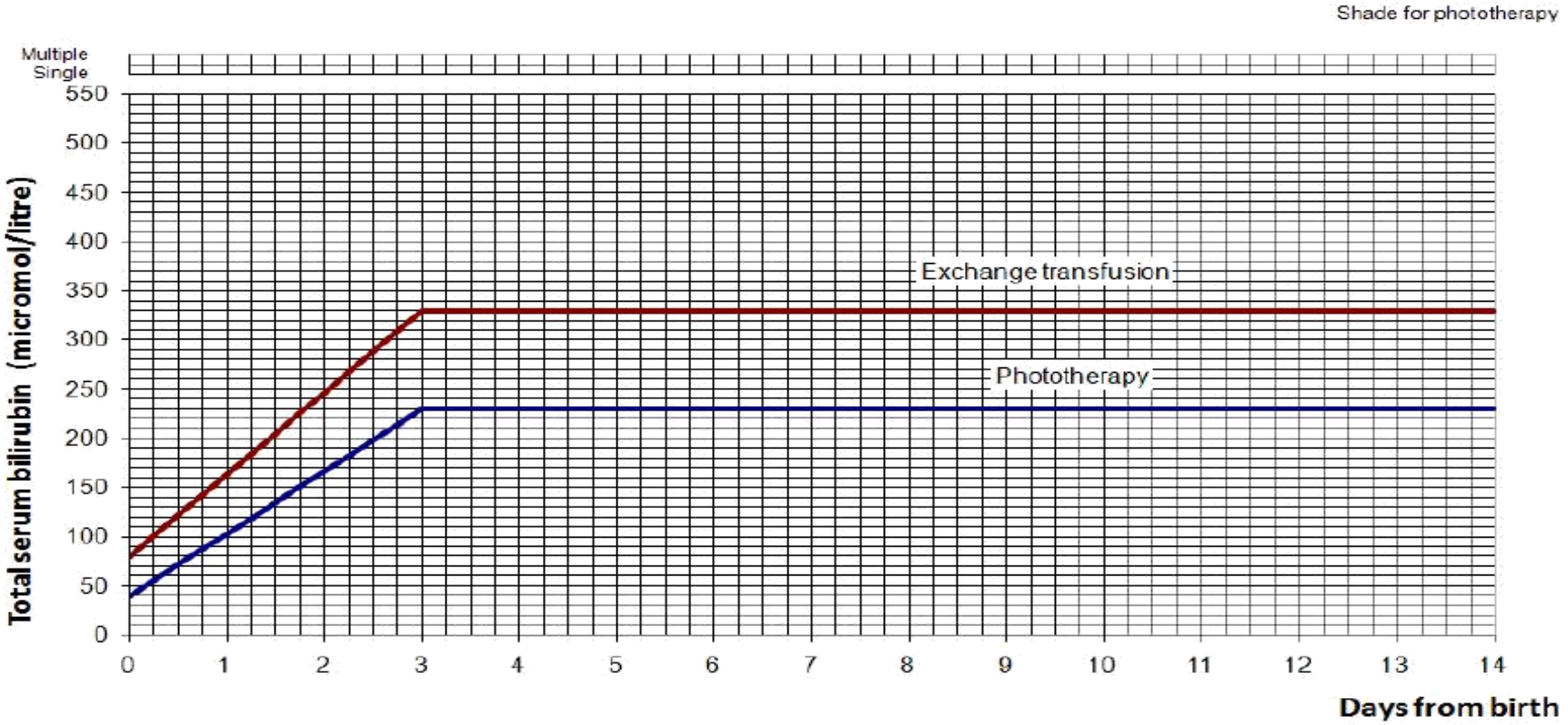
Baby's blood group _____ Mother's blood group _____

APPENDIX C

Treatment threshold graph for babies with neonatal jaundice

Baby's name _____ Date of birth _____

Hospital number _____ Time of birth _____ Direct Antiglobulin Test _____ **33** **weeks gestation**



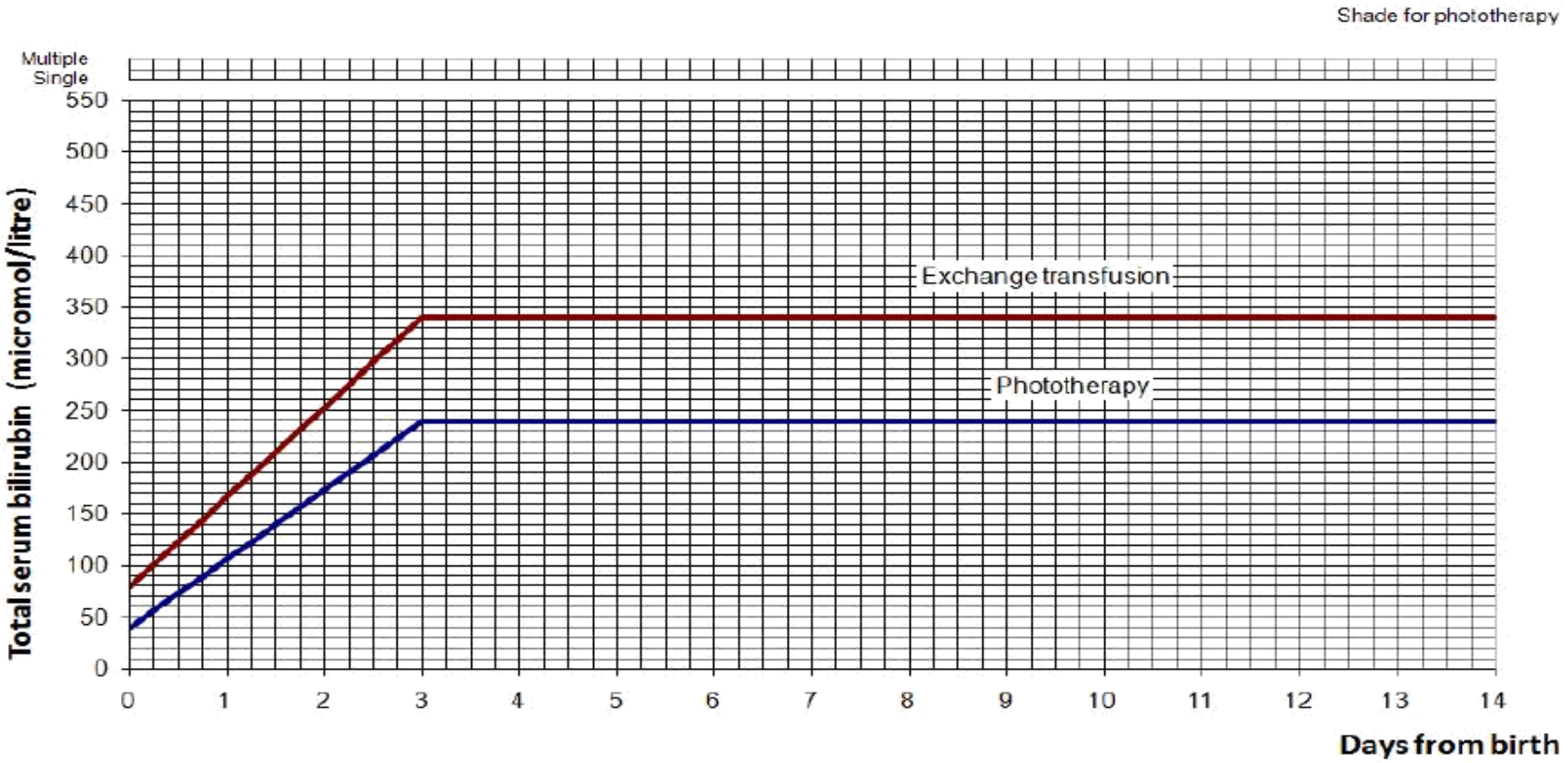
Baby's blood group _____ Mother's blood group _____

APPENDIX C

Treatment threshold graph for babies with neonatal jaundice

Baby's name _____ Date of birth _____

Hospital number _____ Time of birth _____ Direct Antiglobulin Test _____ **34** **weeks gestation**



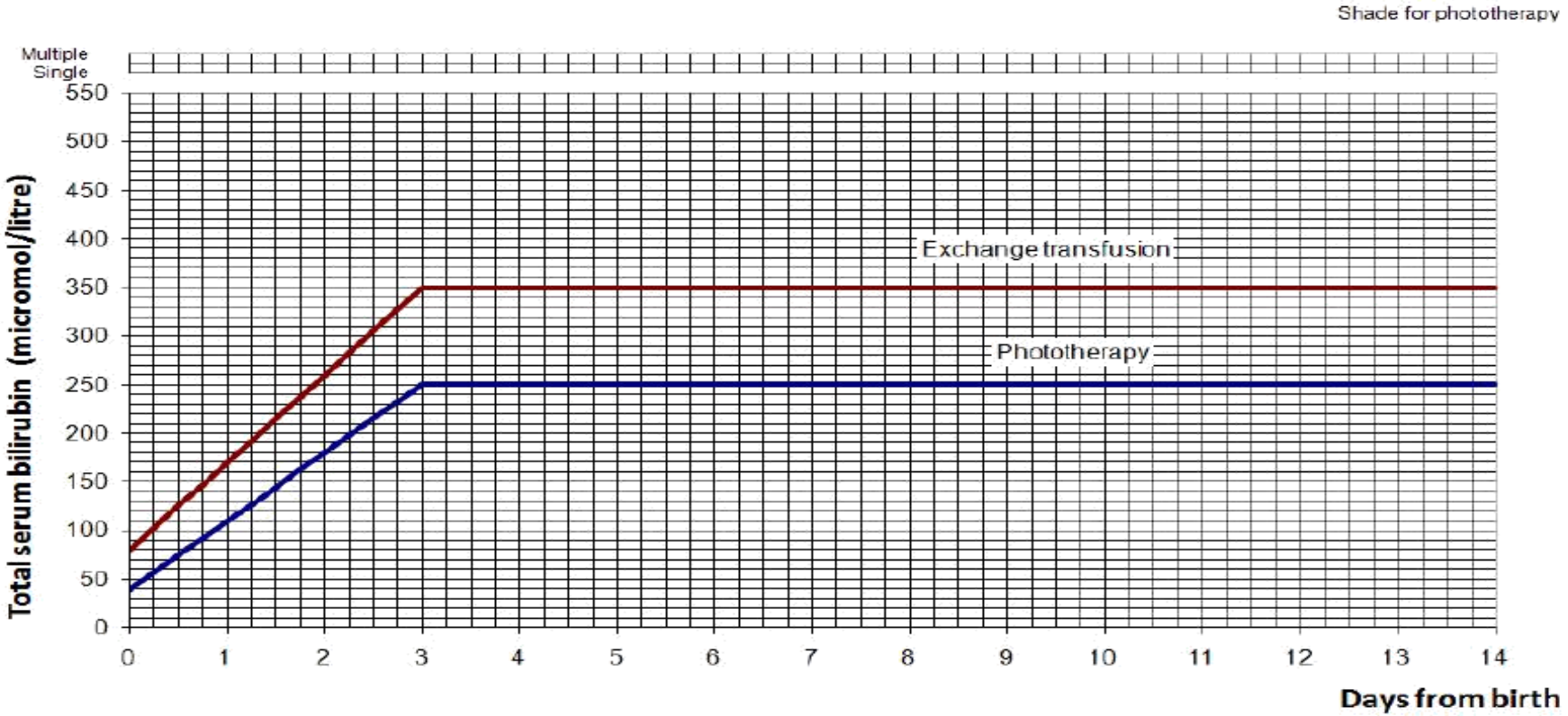
Baby's blood group _____ Mother's blood group _____

APPENDIX C

Treatment threshold graph for babies with neonatal jaundice

Baby's name _____ Date of birth _____

Hospital number _____ Time of birth _____ Direct Antiglobulin Test _____ **35** **weeks gestation**



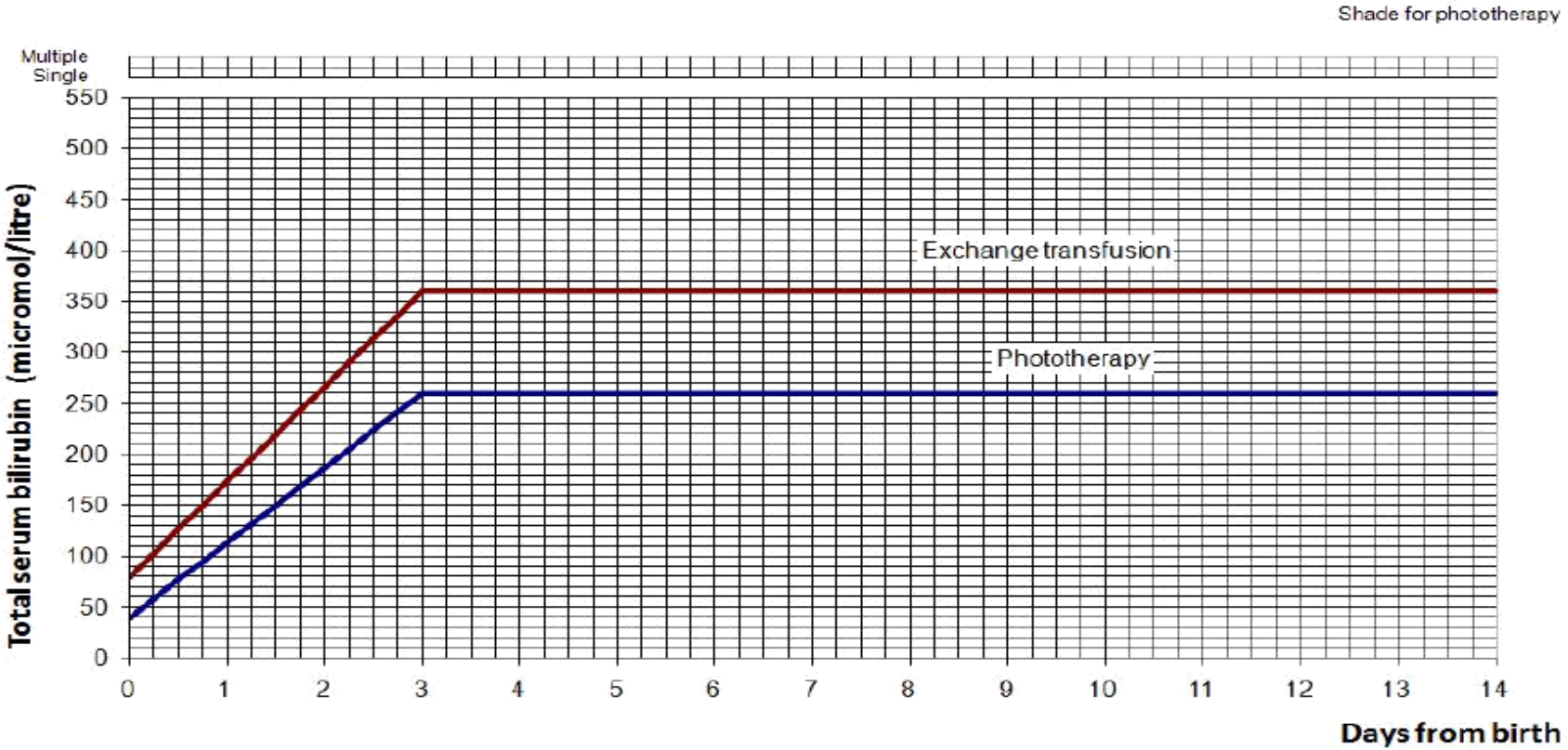
Baby's blood group _____ Mother's blood group _____

APPENDIX C

Treatment threshold graph for babies with neonatal jaundice

Baby's name _____ Date of birth _____

Hospital number _____ Time of birth _____ Direct Antiglobulin Test _____ **36** **weeks gestation**



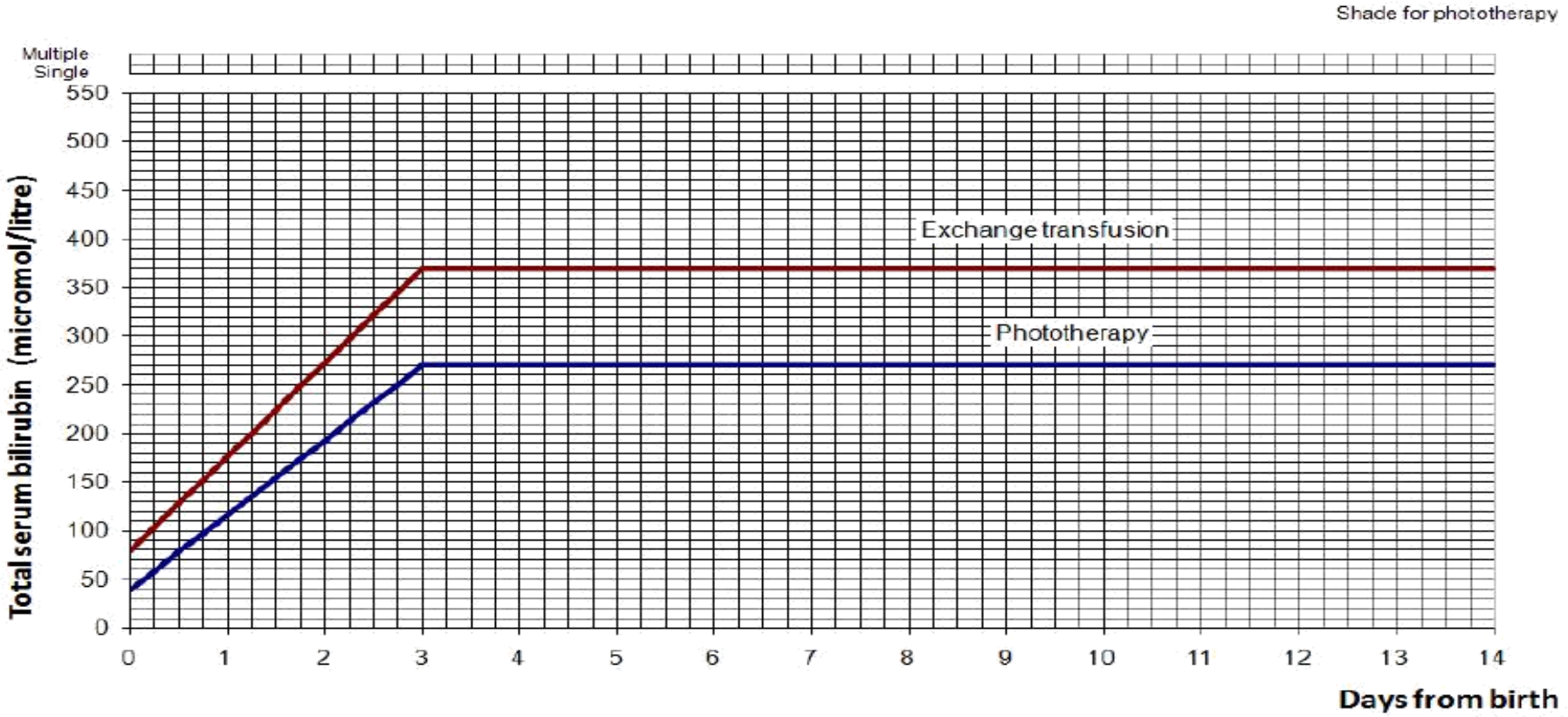
Baby's blood group _____ Mother's blood group _____

APPENDIX C

Treatment threshold graph for babies with neonatal jaundice

Baby's name _____ Date of birth _____

Hospital number _____ Time of birth _____ Direct Antiglobulin Test _____ **37** **weeks gestation**



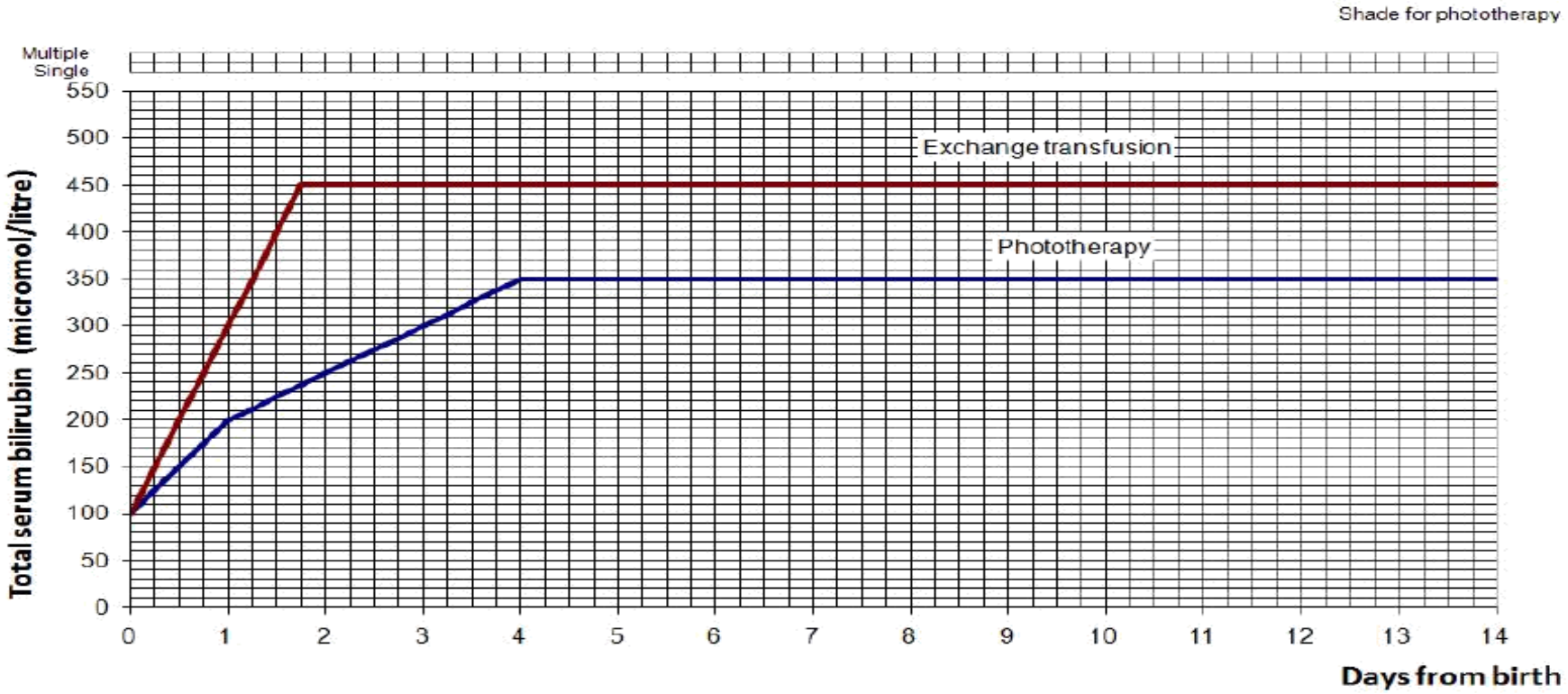
Baby's blood group _____ Mother's blood group _____

APPENDIX C

Treatment threshold graph for babies with neonatal jaundice

Baby's name _____ Date of birth _____

Hospital number _____ Time of birth _____ Direct Antiglobulin Test _____ **>=38 weeks gestation**



Baby's blood group _____ Mother's blood group _____

Information for parents

Jaundice in your newborn baby

The most common cause of jaundice in a newborn baby is ‘physiological jaundice’.

What is physiological jaundice?

When your baby is inside your womb and is relying on your circulation he needs a high level of red blood cells to carry enough oxygen from the placenta around his body.
Once your baby is born and breathing for himself he does not need as many of the red blood cells and begins to break them down in his liver. This is called haemolysis.
What is produced at the end of this breakdown is a yellow pigment called bilirubin. This is what causes your baby to look yellow.
It usually appears on the 2nd or 3rd day after your baby is born and is very common. The degree of yellow can be affected by:

- Having a high red blood cell count.
- Slow to feed.
- Born premature and having an immature liver.

What else may cause jaundice?

Occasionally there may be rarer forms of jaundice including:

Rhesus incompatibility

If the mother’s blood group is negative and the baby’s blood group is positive, antibodies may be made by the mother to protect her against what the body recognises as different cells. These antibodies invade the baby’s blood stream and surround his red blood cells causing them to break down. This is called ‘Haemolytic Disease of the Newborn’. It is usually prevented by screening during pregnancy and by the mother having an ‘Anti D’ injection to prevent the antibodies being produced.

ABO incompatibility

Different blood groups already have antibodies present. This means that if the mother and the baby’s blood group are different and they become mixed for some reason, the mother’s antibodies will breakdown the baby’s red blood cells, just like what happens with rhesus incompatibility.

Both of the above conditions are usually diagnosed quickly, as your baby will become jaundiced within 24 hours of birth.

Bruising

Forceps or Ventouse delivery can cause some bruising, which means red blood cells get broken down - making bilirubin.

Other causes

Rarely, other forms of jaundice may be caused by infection or metabolic disorders.

What symptoms may my baby have?

If your babys' skin is pale/yellow or their eyes appear yellow and the baby is sleepy and not feeding, their urine is dark and /or their stools are pale and chalky you must contact your midwife or GP to get them to check the baby. Also seek medical attention is your baby appears pale/yellow in the first 24 hours of life.

Not all babies need further checks, but if your midwife thinks that your baby does she will discuss this with you and ask for your permission to do a serum bilirubin test (SBR). This test will measure the amount of bilirubin in your baby's blood.

How is the test done?

A midwife/doctor may be able to check with a bilirubinometer against the babys' skin or if not she will take blood from your baby by making a tiny prick in his heel and filling a small plastic bottle. This test will be sent to a lab who will tell us the level of bilirubin in the blood.

If the level is above a certain amount your baby will need to be admitted to hospital for treatment and regular blood tests to check that the level is falling.

How is it treated?

If the level is high enough your baby will be treated with phototherapy. This is a special light that helps to breakdown the level of bilirubin more quickly meaning your baby can pass it out through his bowel or urine.

He will usually be put into a cot with the light underneath him and with a special cover to stop him getting cold. This is called a 'bilibed'.

A midwife/nurse will show you how the bilibed works and will be able to answer any of your questions about treatment.

You will also be asked to feed your baby regularly so that he is getting enough calories to breakdown the bilirubin and to stop him getting dehydrated due to the lights.

Can I stay with my baby?

Babies are kept with their mums on the ward unless they need more specialised treatment i.e. on the Neonatal Intensive Care Unit.

You are able to touch and talk to your baby and feed him/her as normal, although you will be advised to feed more frequently.

Will jaundice cause any problems in the future?

Your baby will receive treatment as soon as it is needed and the baby doctor (paediatrician) will work closely with your midwife/nurse to prevent any potential problems.

How long will the jaundice last?

The time will vary for different babies depending on the reason for the jaundice and the treatment

being given. Usually if your baby is feeding well and is having phototherapy it will improve within a couple of days.

Reference Code: P0076/1467/04:2013/V2

Appendix E

Immunoglobulin - Request Form

Ver.5.416

Has this patient met the Selection Criteria as prescribed in the Clinical Guidelines Second Edition Update:

* Fields marked with an asterisk are mandatory for the upload feature
** Fields marked with a double asterisk are mandatory for a subsequent panel review
*** For Scottish Centres the CHI number is required and the Trust Id is not mandatory

Registration Details:

Patient Name:			
Trust Id (Hospital Number): *		Date First Seen: (dd/mm/yy)	
		Treatment Episode Start Date:	
Date of Birth: * (dd/mm/yyyy)		Gender: *	
NHS / CHI Number: ***			
GP Postcode:		or GP Practice Code:	
Height (m):		Weight (kg):	
Patient Transferred from other trust:		Date Transferred: (dd/mm/yy)	
If yes which trust:			

Panel Details:

Panel Decision: **		Panel Date: ** (dd/mm/yy)	
If rejected give details:			
Panel Colour:		Term:	
Efficacy Tracking Method:			
Name of Panel Member: **			
Next Panel Review Date: (dd/mm/yy)			
Administrative Category:			

Clinical Details:

Care Speciality: *			
Consultant/Registrar Name:		Bleep No. (If known):	
Diagnosis: *			
if Other please specify:			
Confidence in diagnosis:			
Comments, including additional justification for use:			
Secondary Diagnosis:			
Was Plasma Exchange Considered?			
Alternative Tried Before Ig:			
if Other please specify:			
Current Treatment:			
if Other please specify:			
Place of Treatment:		Stage of Treatment:	
Has The Patient Been Offered Home Care: **		Patient received Training from a UK PIN accredited centre: **	
Treatment Route:		Proposed Treatment Regime: *	
Dosage Type:			
Proposed Dose:		grams	
	every		Day(s)
	for		Day(s)
Proposed Treatment Date:			
Preferred Product:			
Additional Comments:			
Completed By:		Date: (dd/mm/yy)	

Documentation Control

Reference Number: UHDB/Neonatal/04:21/N6	**Version:** **2**		**Status: FINAL**	
	Royal Derby prior to merged document:			
Version / Amendment	Version	Date	Author	Reason
	1	Oct 2012	Dr M Ratnayaka – Consultant Paediatrician Dr G Joshi – Consultant Paediatrician Mrs J Steward – Audit Co-ordinator	New guidance to reflect NICE recommendations
	Burton Trust prior to merged document:			
WC/PN/52N	7	Sept 2017	Dr A Manzoor – Consultant Paediatrician Dr M Ahmed – Consultant Paediatrician	Review and Update
Version control for UHDB merged document:				
UHDB	1	Jan 2021	Dr G Joshi – Consultant Paediatrician Dr M Ahmed – Consultant Paediatrician Jenni White – Senior Midwife Primary Care	Review / merge
UHDB/Neonatal/04:21/N6	2	June 2024	Dr G Joshi – Consultant Paediatrician	Review and Renew
Intended Recipients: Paediatric Consultants & Nursing staff at Derby Hospital				
Training and Dissemination: Cascaded electronically through lead sisters/midwives/doctors via NHS.net, Published on Intranet, Article in Business unit newsletter;				
To be read in conjunction with: Exchange transfusion, newborn care, immunoglobulin				
Development of guideline: Dr G Joshi				
In Consultation with: Obstetricians, Paediatricians Midwifery Staff				
Keywords: Early Neonatal Jaundice				
Business Unit sign off:			**Group:** Paediatric Guidelines Group **Date: 10/07/2024**	
Divisional sign off:			**Group:** Women's and Children's Clinical Governance Group **Date:**	
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Key Contact:			Dr Gitika Joshi	