Imperial College London

NDAU
Neonatal Data Analysis Unit

National Neonatal Audit Programme

Data Entry Guideline

2012 Audit Questions
&
National Neonatal Dataset

Version 2

1 May 2012

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Introduction

This document has two purposes:

1. To outline the precise data items that the Neonatal Data Analysis Unit (NDAU) will be using from the National Neonatal Dataset to carry out NNAP analysis from 1 January 2012, and show exactly where these data items can be entered on the Neonatal.Net/Badger3 patient data collection system (*please note that the NNAP screen on Neonatal.Net/Badger3 will no longer be used*); and

2. To outline the entire National Neonatal Dataset as collected on Neonatal.Net/Badger3.

An edition of this document that identifies the National Neonatal Dataset on the new BadgerNet platform is soon to follow. Additionally, the latest version of this document will be available for download from www.rcpch.ac.uk/nnap and units will be informed when an updated version is available by email. An amended version will be produced at least annually, when the audit questions are reviewed and some changed.

Any queries relating to this document should be directed to the NNAP Project Co-ordinator at kim.davis@rcpch.ac.uk, rather than to Clevermed or NDAU directly.

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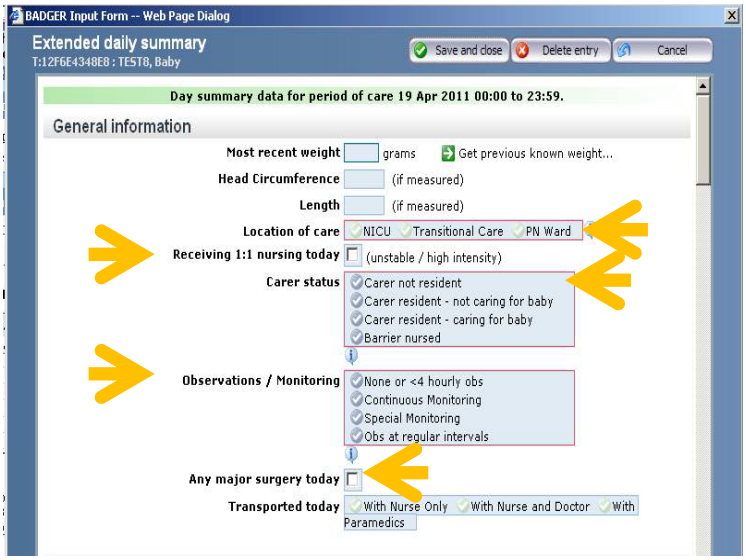
Audit Questions

Neonatal Care

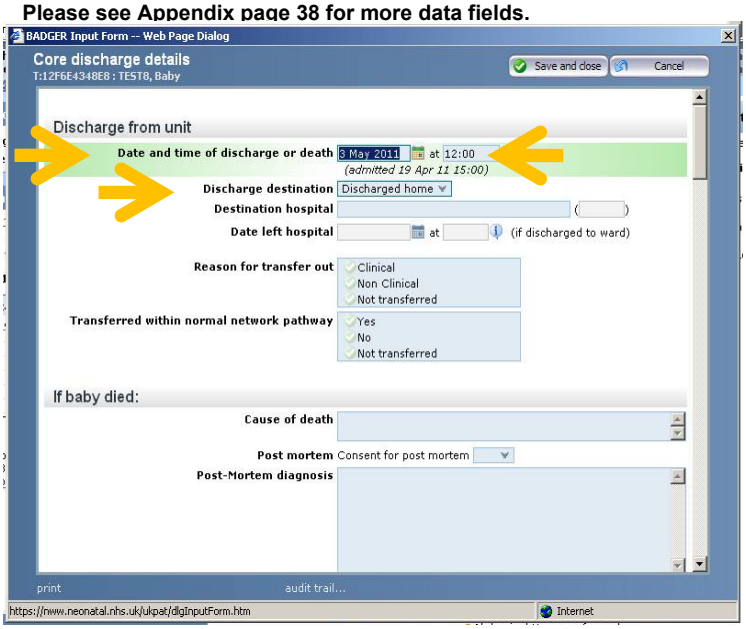
NNAP classification of neonatal care applies the BAPM Categories of Care 2011 and Health Resource Group (HRG) definitions for care provided on a neonatal unit. Information necessary for categorisation is collected on a daily basis through the *Extended Daily Summary* form and at discharge through the *General Discharge form* on Badger3/Neonatal.Net.

Classifying Neonatal Care:

- *Extended daily summary form*
  - *Location of care*
  - *Carer status*
  - *Observation/Monitoring*
  - *Any major surgery today*
  - *Pulmonary vasodilator*
  - *Inotropes today*
  - *IV Glucose and electrolyte solution*
  - *Method of feeding*
  - *Respiratory Support*
  - *Mode of ventilation*
  - *Mode of CPAP*
  - *Chest drain present*
  - *Tracheostomy present*
  - *Tracheostomy cared for by*
  - *Replogle tube in situ*
  - *Surgery for PDA*
  - *Neonatal abstinence syndrome*
  - *Apnoea today*
  - *Peritoneal dialysis/haemofiltration today*
  - *Treatment for NEC*
  - *Gastroschisis with silo in situ*
  - *Full exchange transfusion today*
  - *Partial (dilutional) transfusion today*
  - *Convulsions*
  - *EEF/CFAM today*
  - *Surgery for VP shunt*
  - *ROP surgery today*
  - *Line in situ today*
  - *Parenteral nutrition today*
  - *Other infusions*
  - *Phototherapy today*
- *General Discharge form*
  - *Date and time of discharge or death*
  - *Discharge destination*



Please see Appendix page 38 for more data fields.



Please see Appendix page 32 for more data fields.

Question 1

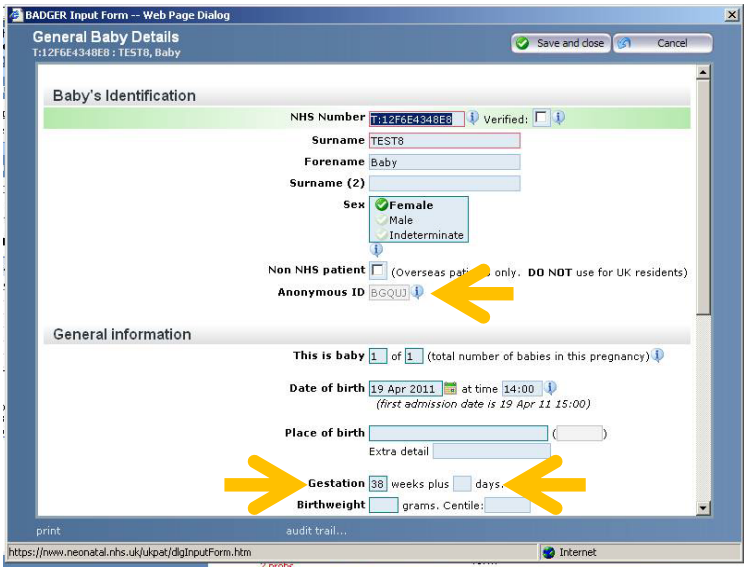
Do all babies of less than or equal to 28^{+6} weeks have their temperature taken within an hour after birth?

Eligible babies:

- Discharged from neonatal care in 2012
- Babies with a gestational age ≤28^{+6} weeks
- Admitted within ≤1 hour of birth to a NNAP participating neonatal unit
- Reported by hospital of birth

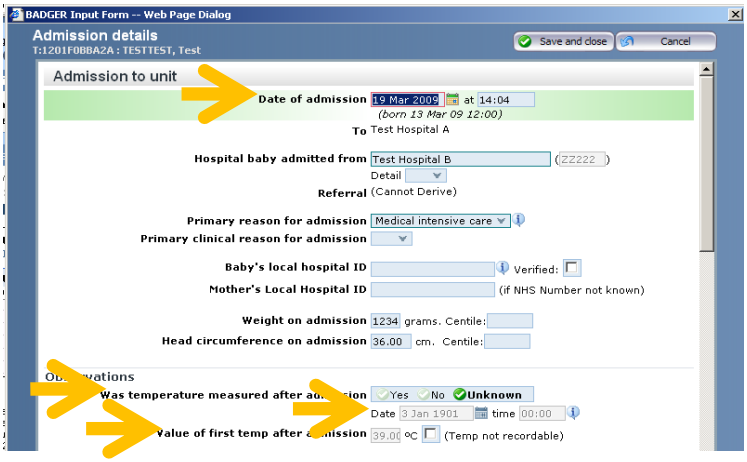
Data Source:

- *General details form*
  - *Anonymous ID*
  - *Gestation Weeks*
  - Gestation *Days*
  - Final NNU Outcome



- *Admission details* form
  - *Date of admission*
  - *Was temperature measured after admission*
  - *Date and time of first temperature measure*
  - *Value of first temperature measure*

- *General Discharge form*
  - *Date and time of discharge or death*
  - *Discharge destination*



Question 2

Are all mothers who deliver their babies between 24^{+0} and 34^{+6} weeks gestation given any dose of antenatal steroids?

Eligible babies:

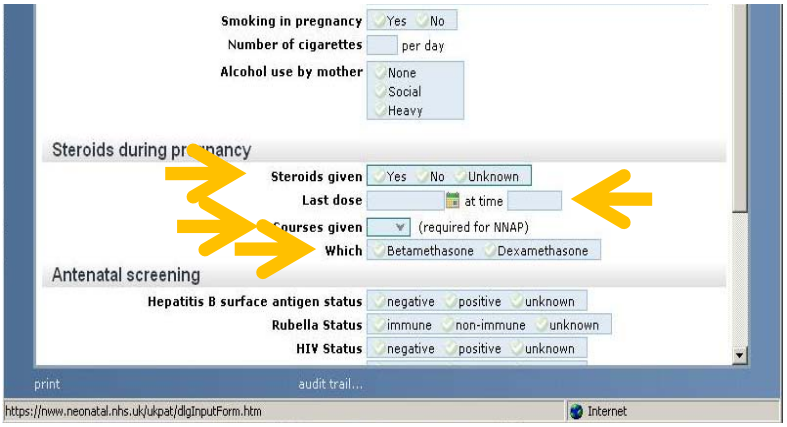
- Discharged from neonatal care in 2012
- Mothers of babies with a gestation age between 24^{+0} – 34^{+6} weeks
- Reported by hospital of birth

Data Source:

- *General details form* (please see Appendix page 19)
  - *Anonymous ID*
  - *This is baby __ of __*
  - *Place of birth*
  - *Gestation weeks*
  - *Gestation days*
  - *Final NNU Outcome*

- *Parents details form* (please see Appendix page 20)
  - *NHS Number Mother*
    - *This item is anonymised*

- *Pregnancy details form*
  - *Steroids given*
  - *Steroid courses given*



- *Admission details form* (please see Appendix page 29)
  - *Hospital baby admitted from*
  - *Hospital baby admitted from detail*

- *General Discharge form*
  - *Date and time of discharge or death*
  - *Discharge destination*

Question 3

Are all babies with a gestational age of <32^{+0} weeks or <1501g at birth undergoing ROP screening during the recommended time window for first ROP screening as per the current guideline recommendations?

Eligible babies:

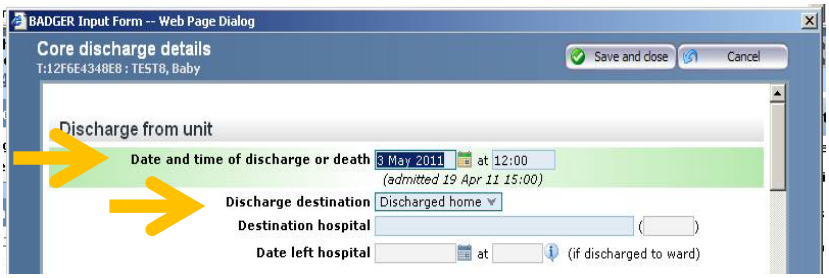
- Discharged from neonatal care to home, ward, or died (after screening window) in 2012
- Babies with a gestational age <32^{+0} weeks or birth weight <1501g
- Reported by hospital of screening, which is the hospital where the baby was screened or the hospital caring for the unscreened baby when the screening window closed.

Data Source:

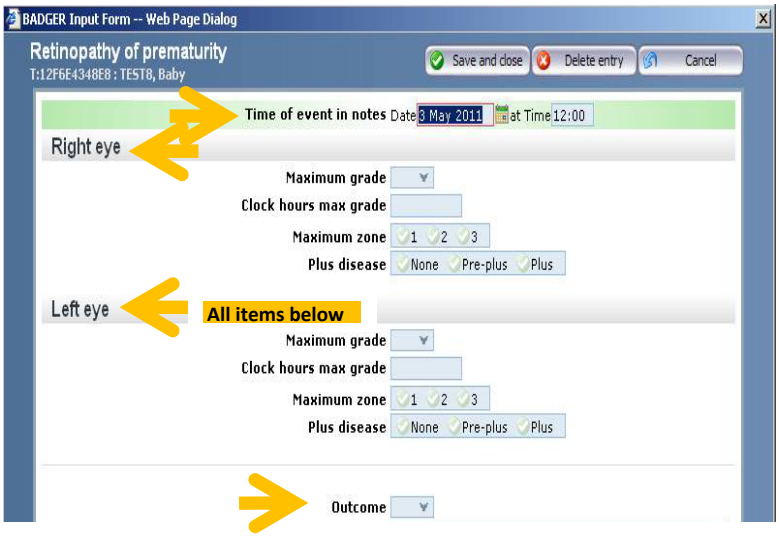
- *General details form* (please see Appendix page 19)
  - *Anonymous ID*
  - *This is baby __ of __*
  - *Place of birth*
  - *Birth weight*
  - *Gestation weeks*
  - *Gestation days*
  - *Final NNU Outcome*

- *Admission details form* (please see Appendix page 29)
  - *Date and time of admission*
  - *Hospital baby admitted from*
  - *Hospital providing care (derived)*

- *General Discharge form*
  - *Date and time of discharge*
  - *Discharge destination*



- *Ad hoc form: Retinopathy of Prematurity*
  - *Date and time of event in notes*
  - *Right eye test items*
  - *Left eye test items*
  - *Outcome*



Question 4

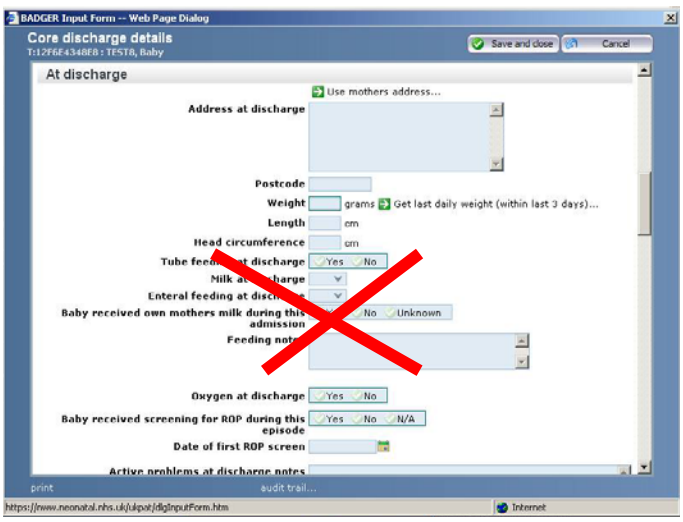
What proportion of babies of <33^{+0} weeks gestation at birth are receiving their mother's milk when discharged home from a neonatal unit?

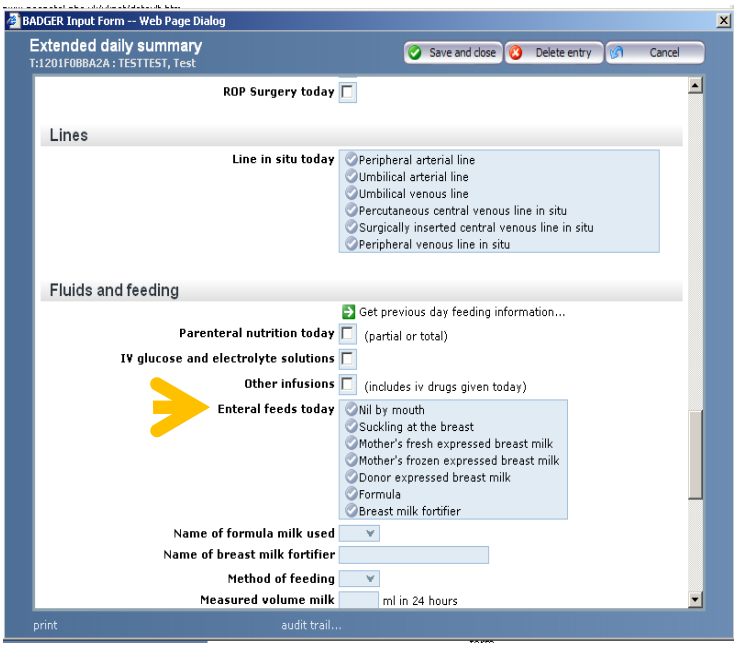
Eligible babies:

- Discharged from neonatal care to home or ward in 2012
- Babies with a gestational age <33^{+0} weeks
- Reported by hospital of final neonatal care

Data Source:

- *General details form* (please see Appendix page 19)
  - o *Anonymous ID*
  - o *Gestation weeks*
  - o *Gestation days*
  - o *Final NNU Outcome*
- *Admission details* form (please see Appendix page 29)
  - o *Date and time of admission*
  - o *Hospital baby admitted from*
  - o *Hospital providing care (derived)*
- *General Discharge form* (please see Appendix page 32)
  - o *Date and time of discharge*
  - o *Discharge destination*
- *Extended daily summary form*
  - o *Day of care (derived)*
  - o *Enteral feeds today*
  - o **Please note:** *The NNAP is NOT using feeding data items collected at discharge*





Question 5

Is there a documented consultation with parents by a senior member of the neonatal team[a] within 24 hours of each admission?

- [a] A senior member of clinical staff is a Consultant, Associate Specialist, Specialist Registrar (SpR), Staff Grade doctor, or a Speciality Doctor/ANNP acting as a SpR.

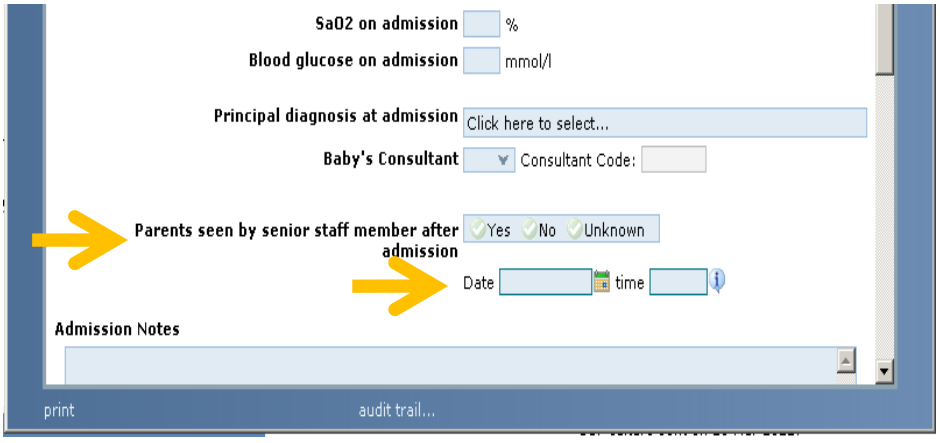
Eligible babies:

- Discharged from neonatal care in 2012
- Reported by hospital of neonatal care

Data Source:

- *General details form* (please see Appendix page 19)
  - *Anonymous ID*
  - *Final NNU Outcome*

- *Admission details* form
  - *Date and time of admission*
  - *Parents seen by senior staff member after admission*
  - *Date and time parents seen by senior member after admission*



- *General Discharge form*
  - *Date and time of discharge or death*
  - *Discharge destination*

Question 6

Are all babies accessing neonatal services treated in their own normal Network clinical pathway (except where clinical reasons dictate)?

Eligible babies:

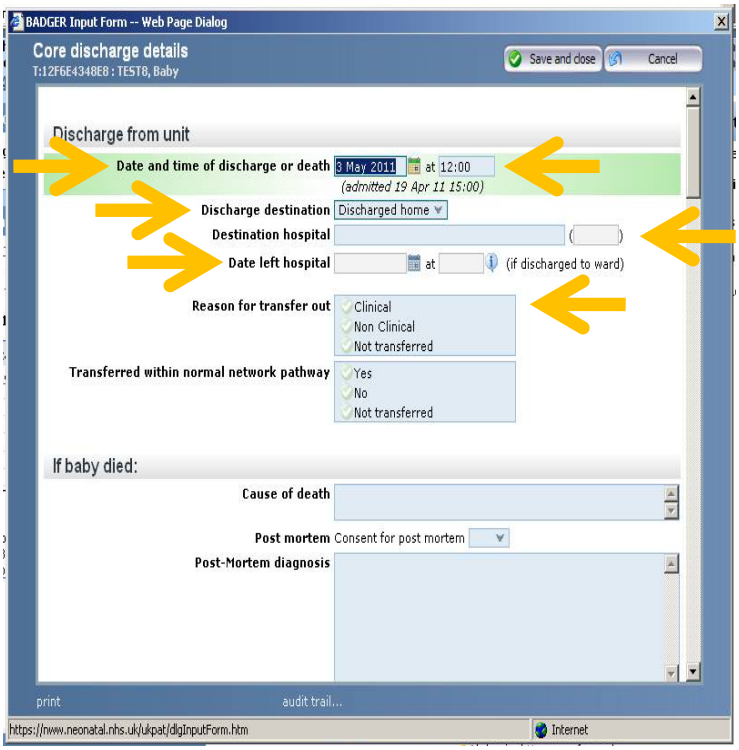
- Discharged from neonatal care in 2012
- Babies who have more than 1 episode of neonatal care
- Reported by network of birth

Data Source:

- *General details form* (please see Appendix page 19)
  - *Anonymous ID*
  - *Final NNU Outcome*

- *Admission details form* (please see Appendix page 29)
  - *Date and time of admission*
  - *Hospital baby admitted from*
  - *Primary reason for admission*
  - *Hospital providing care (derived)*

- *General Discharge form*
  - *Date and time of discharge or death*
  - *Discharge destination*
  - *Destination hospital*
  - *Date left hospital (if discharged to ward)*
  - *Reason for transfer out*



Question 7

How many babies born between 32^{+0} to 36^{+6} weeks gestation and ≥37^{+0} weeks gestation receive care on a neonatal unit?

Eligible babies:

- Discharged from neonatal care in 2012
- Babies with a gestational age between 32^{+0} to 36^{+6} weeks and ≥37^{+0} weeks reported by maternity services
- Babies with a gestational age between 32^{+0} to 36^{+6} weeks and ≥37^{+0} weeks reported on Neonatal.net that received at least 1 full day of neonatal care
- Reported by first hospital of neonatal care

Data Source:

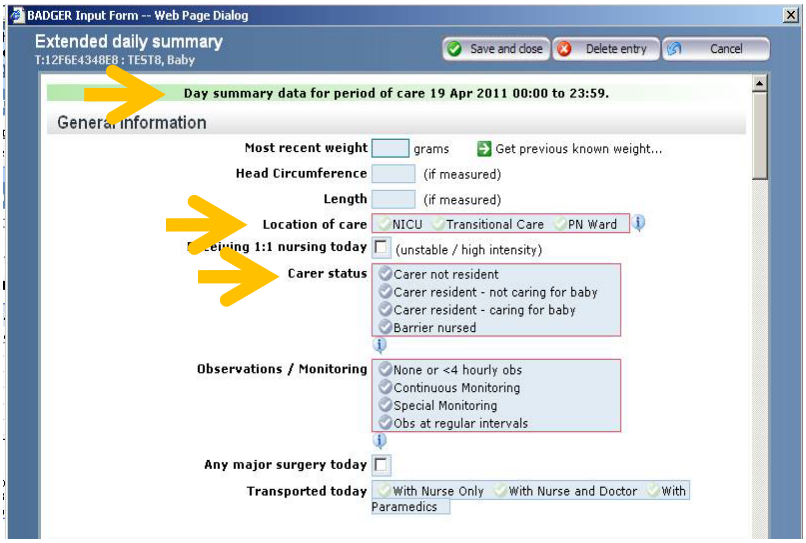
- *Maternity unit data submission* (To be confirmed)
  - *Number of babies born (live and still birth)*
  - *Gestation weeks at birth*

- *General details form* (please see Appendix page 19)
  - *Anonymous ID*
  - *Gestation weeks*
  - *Gestation days*

- *Admission details form* (please see Appendix page 29)
  - *Date and time of admission*
  - *Hospital baby admitted from*
  - *Primary reason for admission*
  - *Hospital providing care (derived)*

- *General Discharge form* (please see Appendix page 32)
  - *Date and time of discharge or death*
  - *Discharge destination*

- *Extended daily summary form*
  - *Day of care (derived)*
  - *Location of care*
  - *Carer status*



Question 8

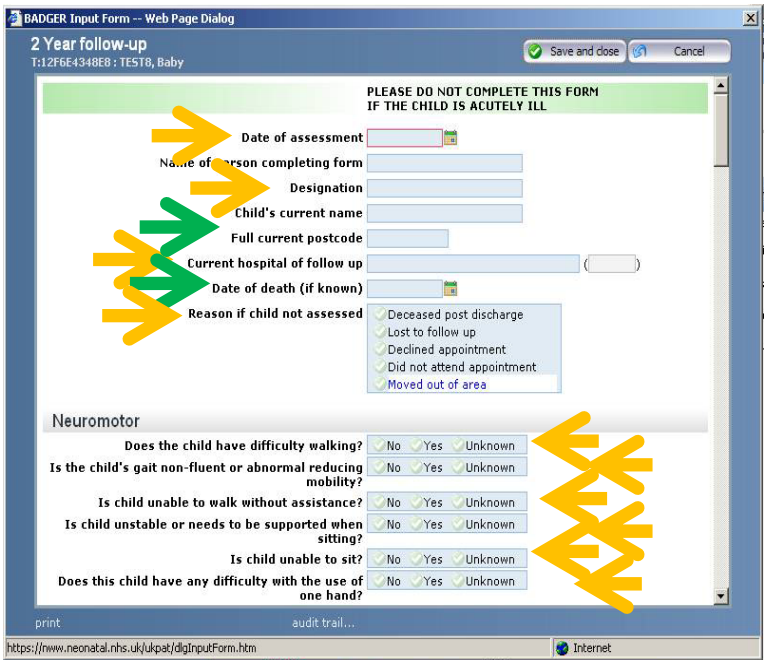
Are rates of normal survival at 2 years comparable in similar babies in similar units?

Eligible babies (2012):

- Babies born ≤ 30 weeks between July 2009 and June 2010 and discharged from neonatal care to home or ward.Reported by network of birth

Data Source:

- *General details form* (please see Appendix page 19)
  - o *Anonymous ID*
  - o *Gestation weeks*
  - o *Gestation days*
- *Admission details form* (please see Appendix page 29)
  - o *Date and time of admission*
  - o *Hospital baby admitted from*
  - o *Primary reason for admission*
  - o *Hospital providing care (derived)*
- *General Discharge form* (please see Appendix page 32)
  - o *Date and time of discharge or death*
  - o *Discharge destination*
- *2 year follow up screen* (please see Appendix page 22)
  - o *All items marked with a yellow arrow on pages 22-25.*



Please see Appendix page 22 for more data fields.

Question 9

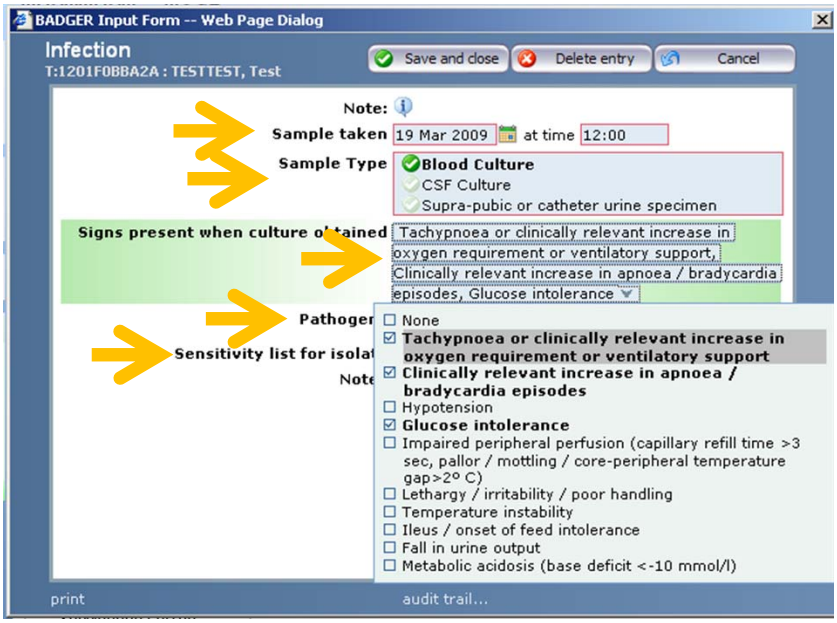
What percentage of babies admitted to a neonatal unit have: (a) one or more episodes of a pure growth of a pathogen from blood, (b) one or more episodes of a pure growth of a pathogen from CSF, and (c) either a pure growth of a skin commensal or a mixed growth with ≥3 clinical signs at the time of blood sampling?

Eligible babies:

- Discharged from neonatal care in 2012
- All babies with an adhoc Culture form data entry
- Reported by hospital of culture sample

Data Source:

- *General details form* (please see Appendix page 19)
  - *Anonymous ID*
  - *Gestation weeks*
  - *Gestation days*
- *Admission details form* (please see Appendix page 29)
  - *Date and time of admission*
  - *Hospital baby admitted from*
  - *Primary reason for admission*
  - *Hospital providing care (derived)*
- *General Discharge form* (please see Appendix page 32)
  - *Date and time of discharge or death*
  - *Discharge destination*
- *Ad-hoc form: Infection/Culture*
  - *Sample taken date and time*
  - *Sample type*
  - *Signs present when culture obtained*
  - *Pathogens*
  - *Sensitivity list for isolates*



Question 10

What percentage of babies of more than or equal to 35^{+0} weeks gestation have an encephalopathy within the first 3 full calendar days after birth?

Eligible babies:

- Discharged from neonatal care in 2012
- Babies with a gestational age ≥35^{+0} weeks and surviving to 3 full calendar days after birth
- Receiving neonatal care for 3 full days after birth
- Reported by place of birth

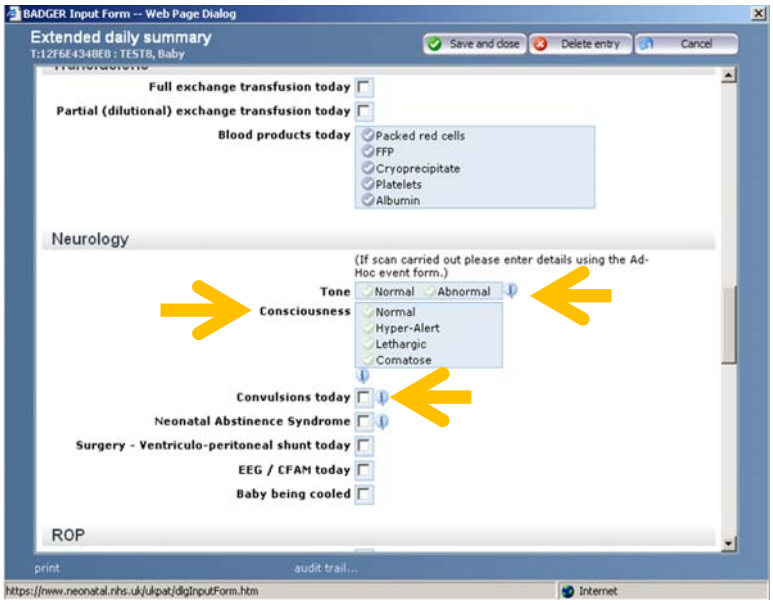
Data Source:

- *General details form* (please see Appendix page 19)
  - *Anonymous ID*
  - *Gestation weeks*
  - *Gestation days*

- *Admission details form* (please see Appendix page 29)
  - *Date and time of admission*
  - *Hospital baby admitted from*
  - *Primary reason for admission*
  - *Hospital providing care (derived)*

- *General Discharge form* (please see Appendix page 32)
  - *Date and time of discharge or death*
  - *Discharge destination*

- *Extended daily summary form*
  - *Day of care (derived)*
  - *Tone*
  - *Consciousness*
  - *Convulsions today*
    - *Note: this field will soon require a response of 'yes', 'no', 'unknown'*



Question 11

How many blood stream infections[a] are there on a NNU per 1000 days of central line[b] care?

[a] As defined in the standard question about blood cultures – "The growth of a recognised pathogen in pure culture, or in the case of a mixed growth, or growth of skin commensal, the added requirement for 3 or more of 10 predefined clinical signs"

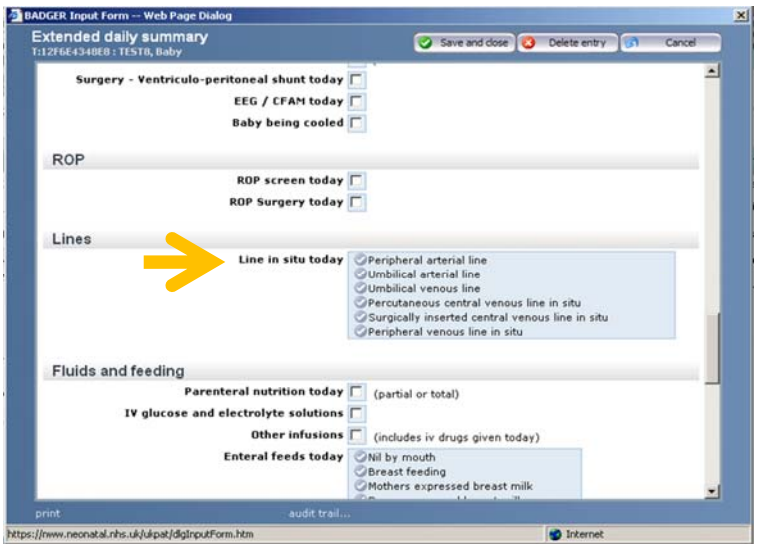
[b] central line = UAC, UVC, percutaneous long line or surgically inserted long line.

Eligible babies:

- Discharged from neonatal care in 2012
- All babies with an adhoc Culture form and Line in situ data entry
- Reported by hospital of culture sample

Data Source:

- *General details form* (please see Appendix page 19)
  - *Anonymous ID*
  - *Gestation weeks*
  - *Gestation days*
- *Admission details form* (please see Appendix page 29)
  - *Date and time of admission*
  - *Hospital baby admitted from*
  - *Primary reason for admission*
  - *Hospital providing care (derived)*
- *General Discharge form* (please see Appendix page 32)
  - *Date and time of discharge or death*
  - *Discharge destination*
- *Ad-hoc form: Infection/Culture* (please see Appendix page 35)
  - *Sample taken date and time*
  - *Sample type*
  - *Signs present when culture obtained*
  - *Pathogens*
  - *Sensitivity list for isolates*
- *Extended daily summary form*
  - *Day of care (derived)*
  - *Line in situ today*



Imperial College London

NDAU
Neonatal Data Analysis Unit

Appendix

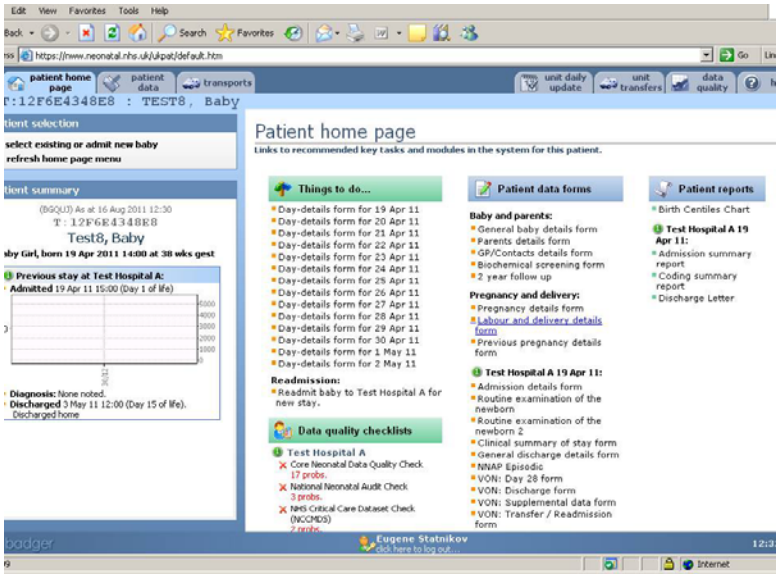
National Neonatal Dataset

Appendix

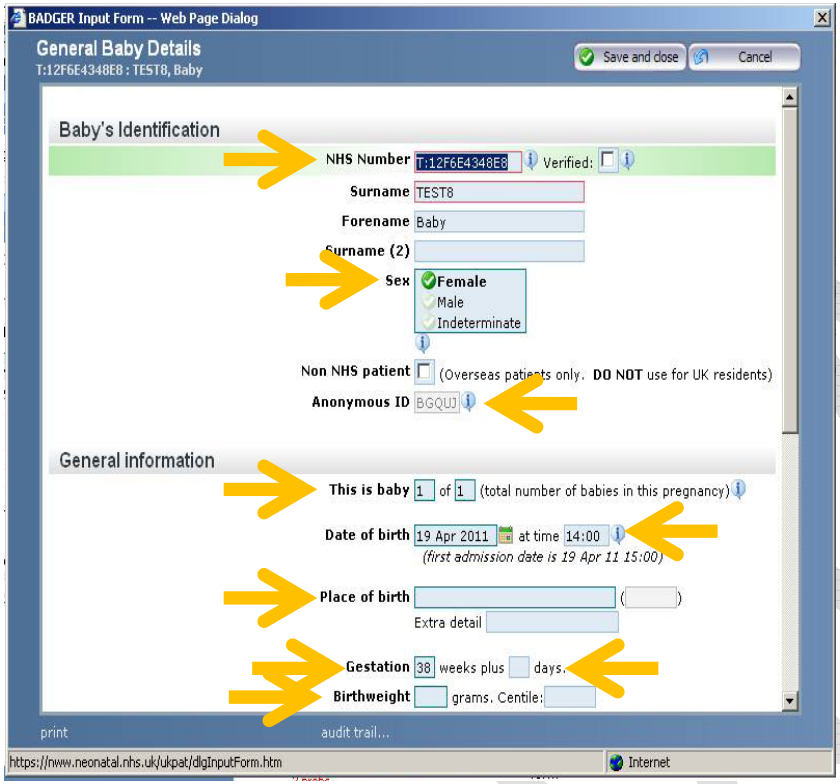
Introduction

The National Neonatal Audit Programme (NNAP) and the National Neonatal Data Analysis Unit (NDAU) utilise the National Neonatal Dataset for national audits, service and outcome evaluations. It is populated from electronic patient data entered on the Neonatal.Net (https://nww.neonatal.nhs.uk) platform. The accompanying images of the platform, operated by Clevermed, Ltd, demonstrate the location of the data entry for reporting. Fields marked with yellow arrows will be used to produce reports on 2012 NNAP data while the fields marked with green arrows are part of the National Neonatal Dataset used for audit development work.

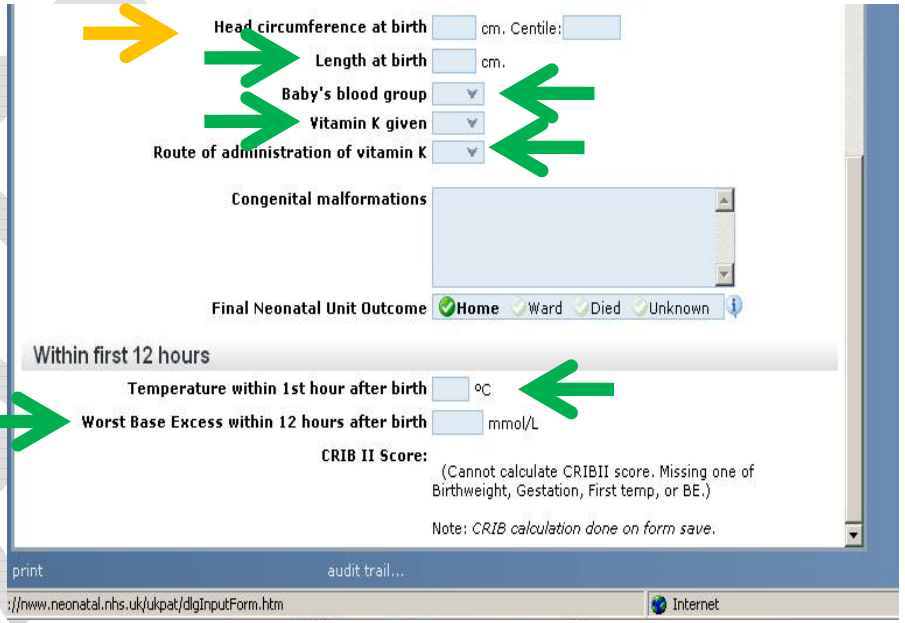
All screen shots are produced from a test record.



Screen: General baby details



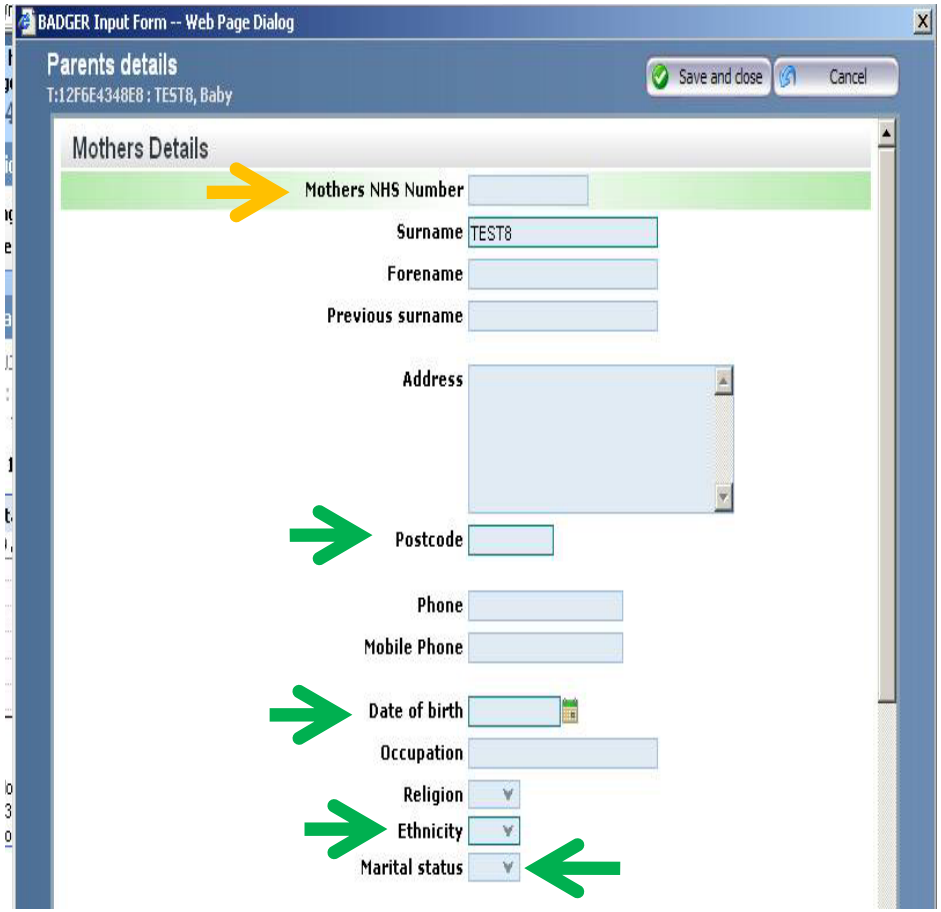
Screen: General baby details (continued)



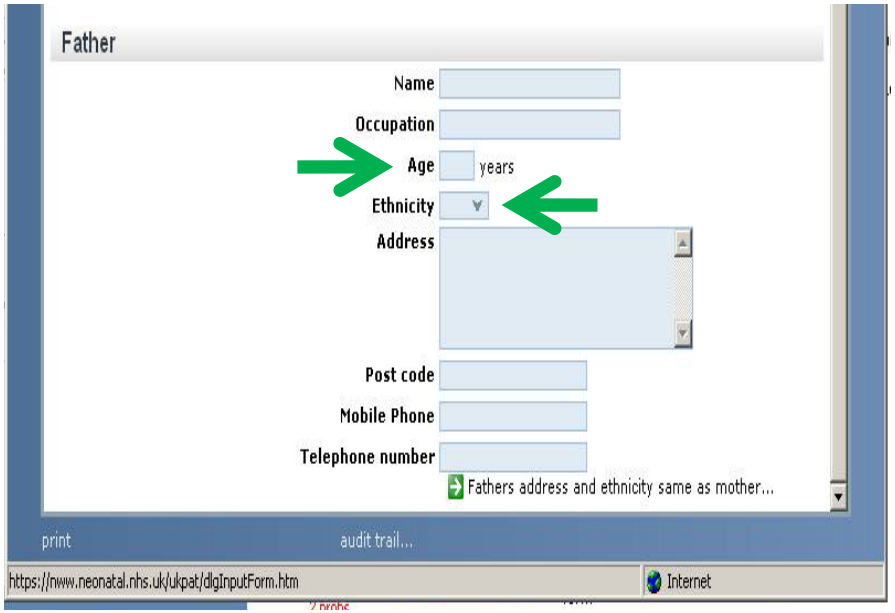
National Neonatal Dataset (for NNAP 2012)

National Neonatal Dataset

Screen: Parent details



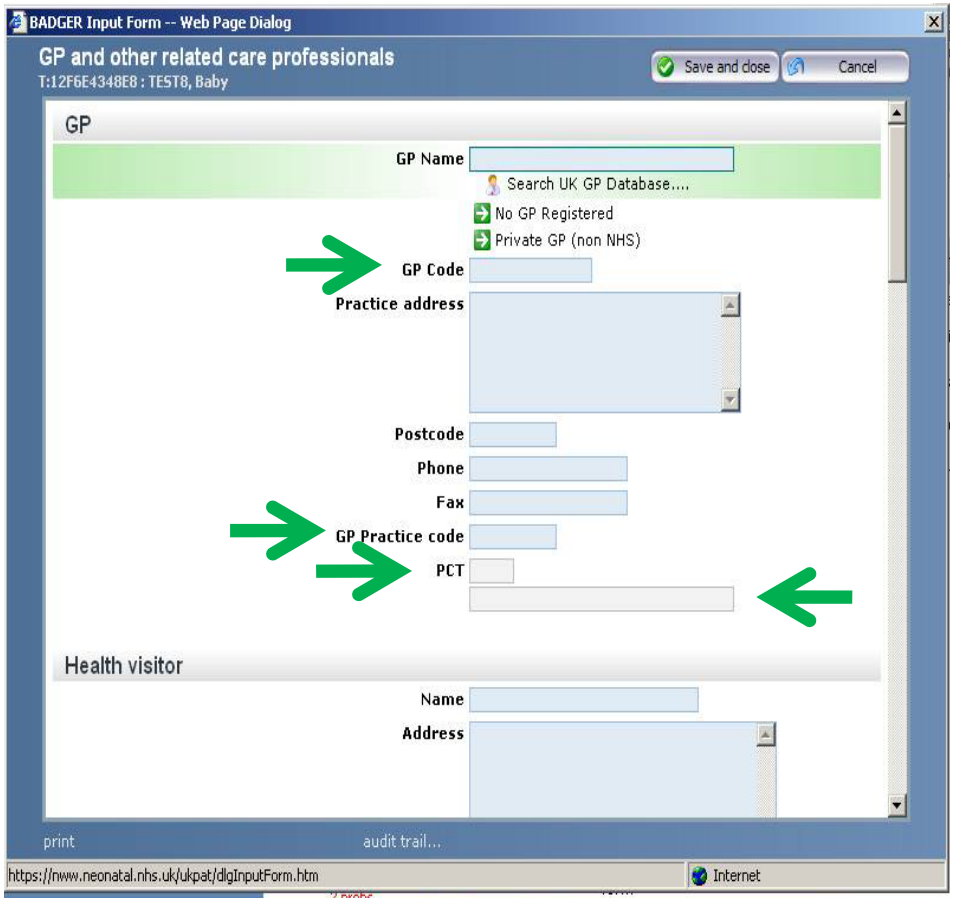
Screen: Parent details (continued)



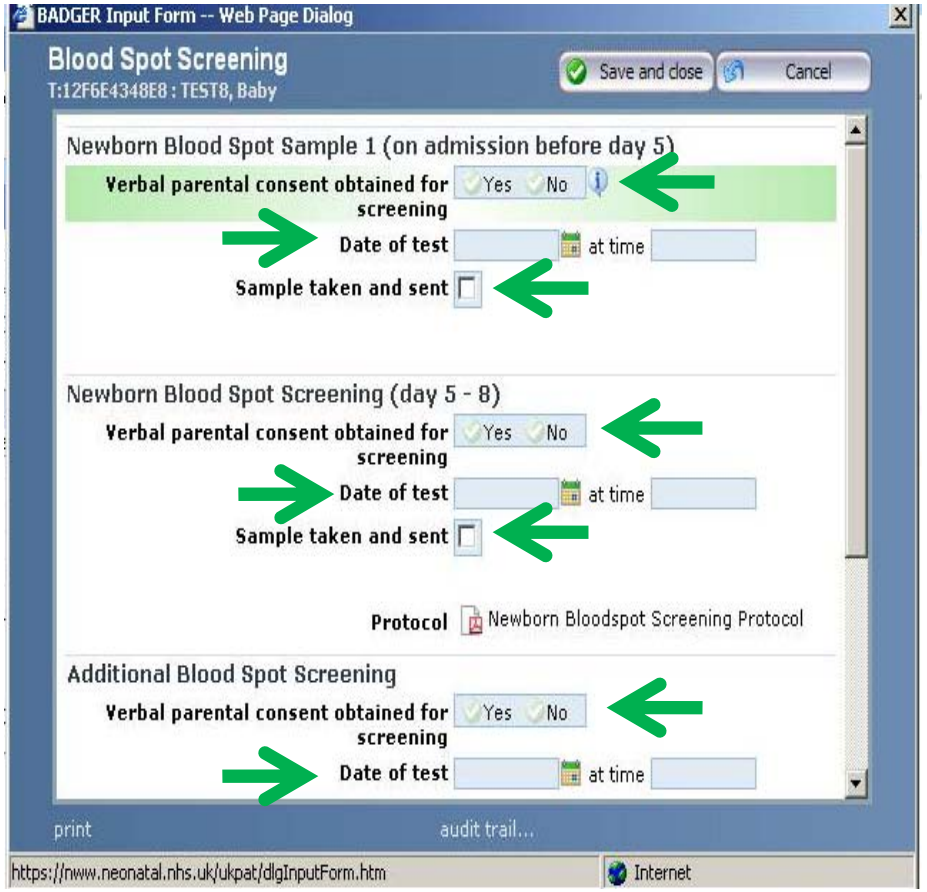
National Neonatal Dataset (for NNAP 2012)

National Neonatal Dataset

Screen: GP and other related care professionals



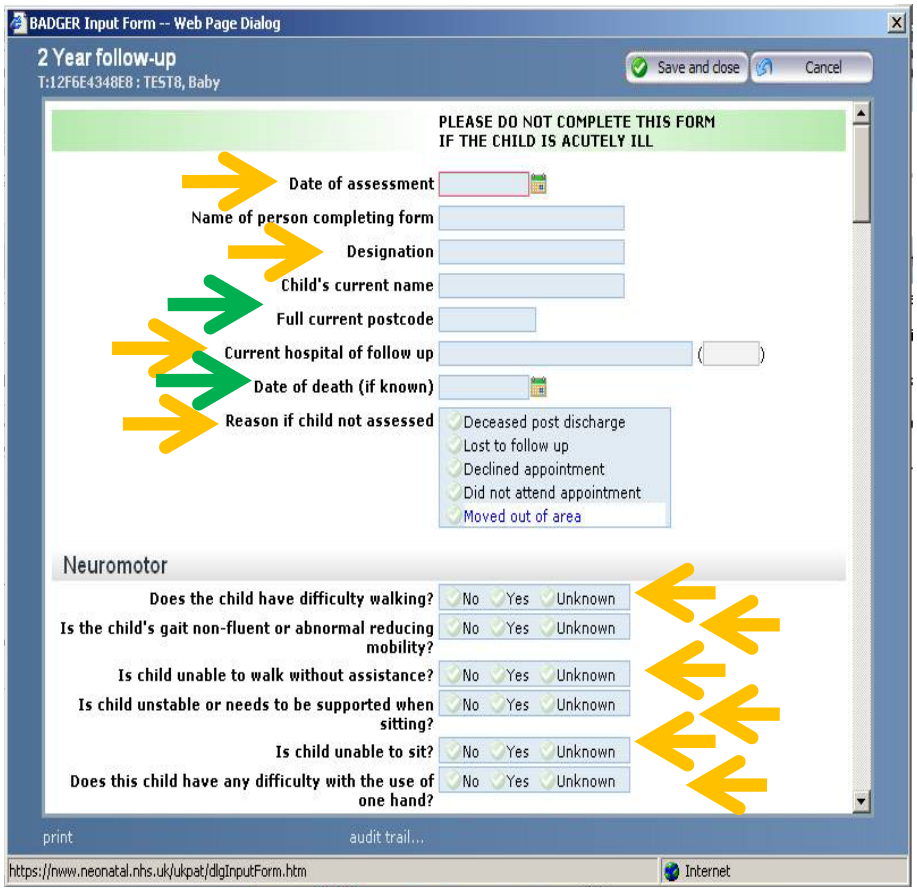
Screen: Biochemical /Blood spot Screening



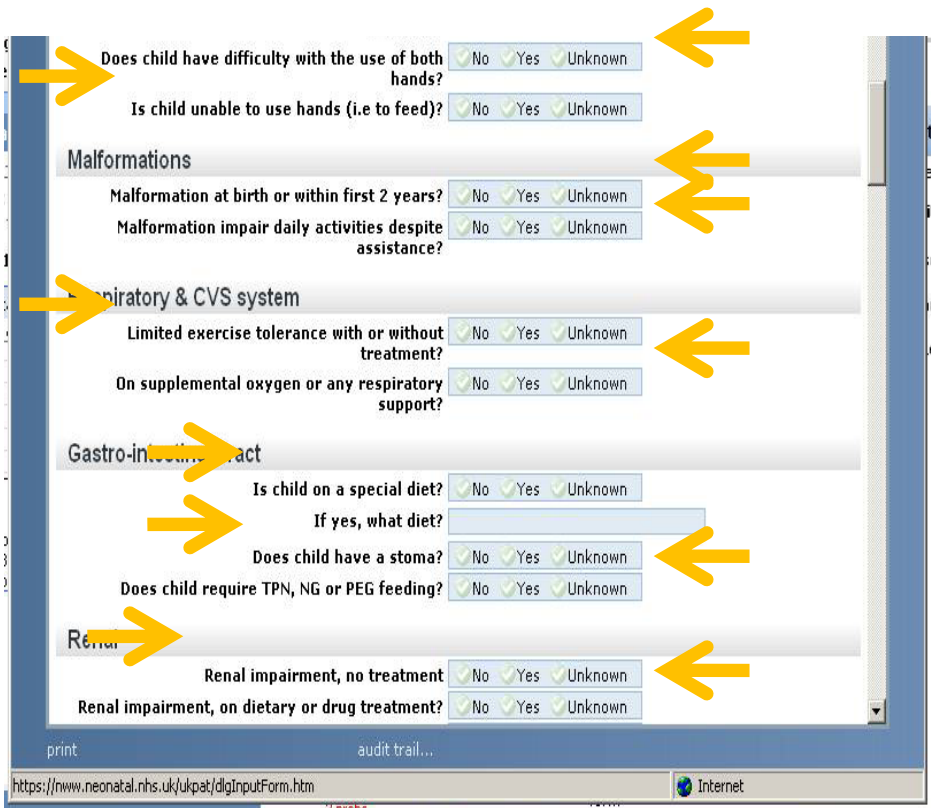
National Neonatal Dataset (for NNAP 2012)

National Neonatal Dataset

Screen: 2 Year follow up



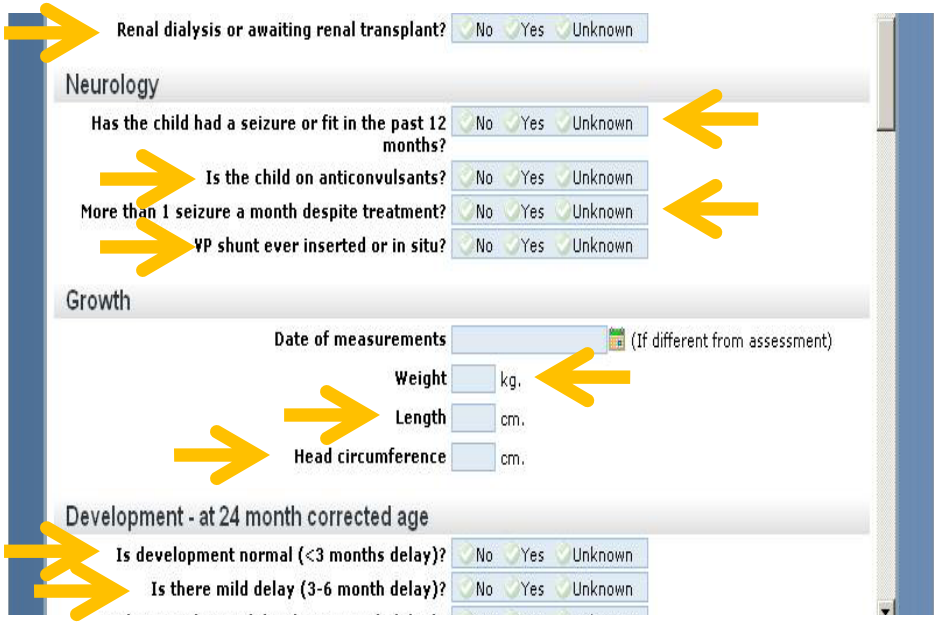
Screen: 2 Year follow up (continued)



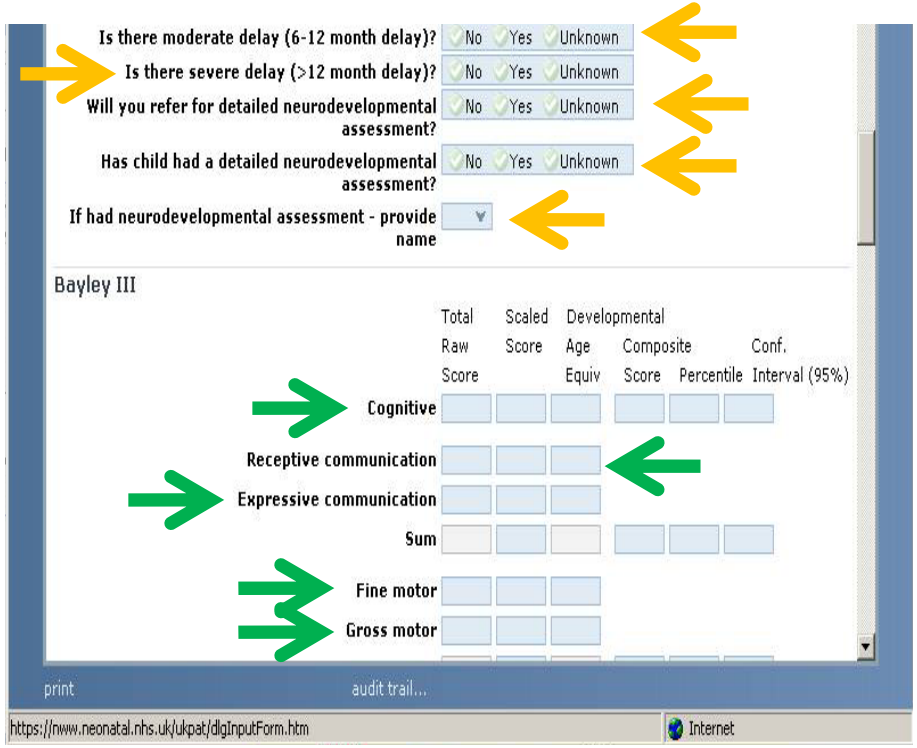
National Neonatal Dataset (for NNAP 2012)

National Neonatal Dataset

Screen: 2 Year follow up (continued)



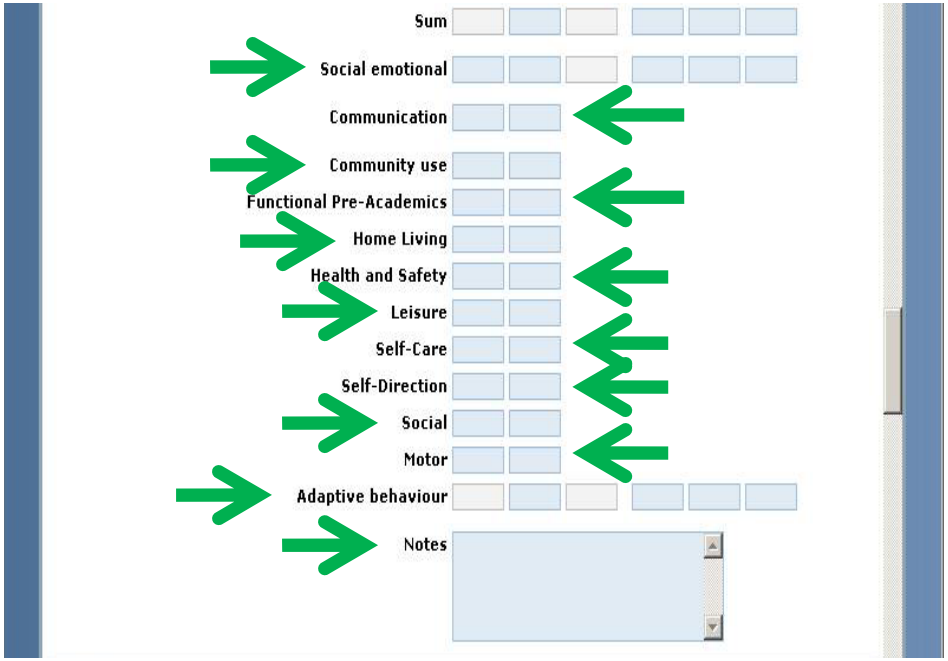
Screen: 2 Year follow up (continued)



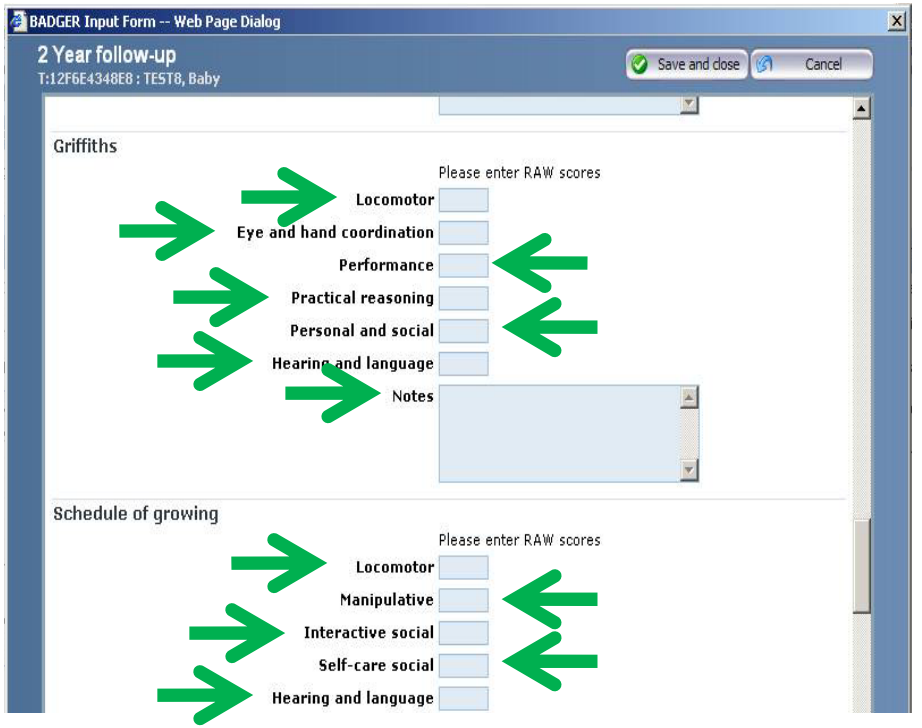
National Neonatal Dataset (for NNAP 2012)

National Neonatal Dataset

Screen: 2 Year follow up (Bailey III continued)



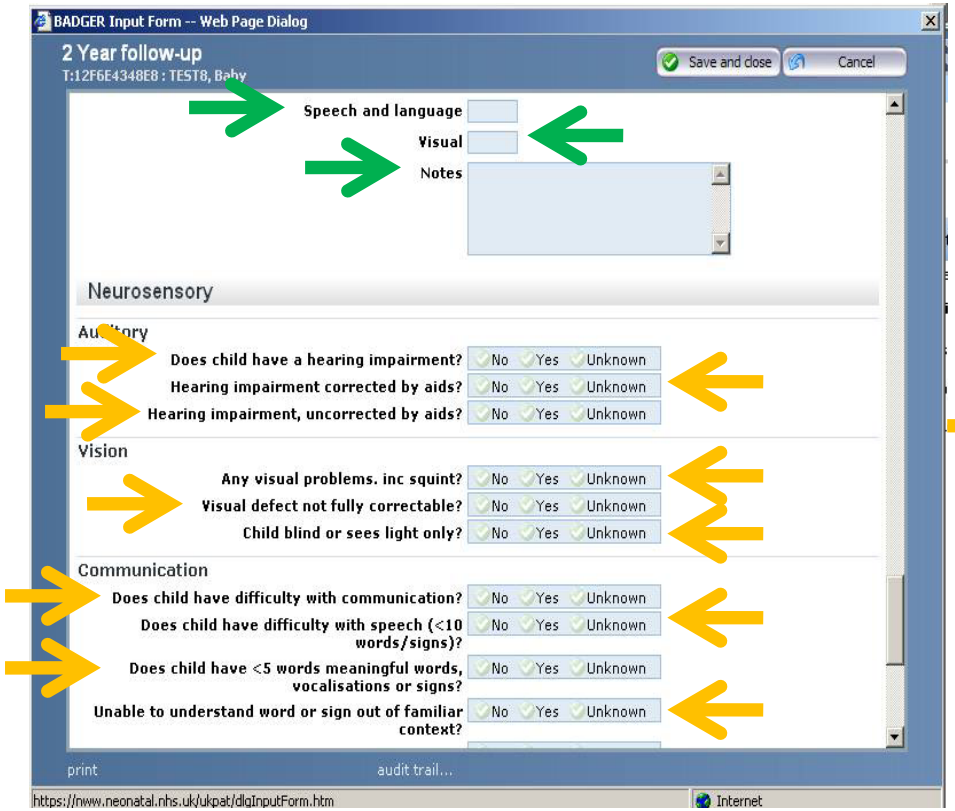
Screen: 2 Year follow up (continued)



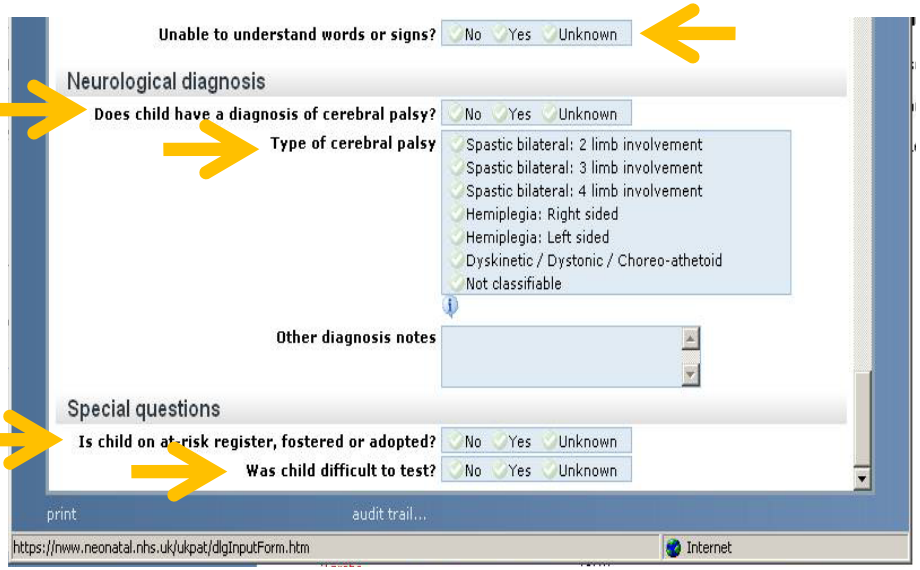
National Neonatal Dataset (for NNAP 2012)

National Neonatal Dataset

Screen: 2 Year follow up (Schedule of Growing continued)



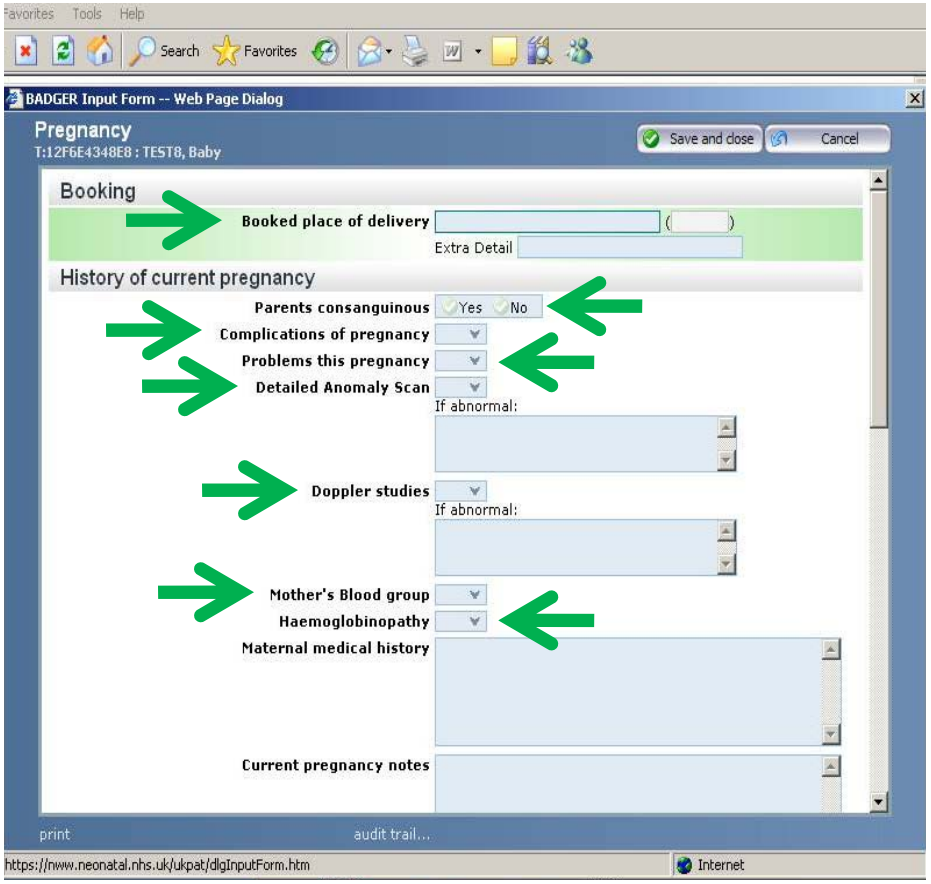
Screen: 2 Year follow up (Neurosensory communication continued)



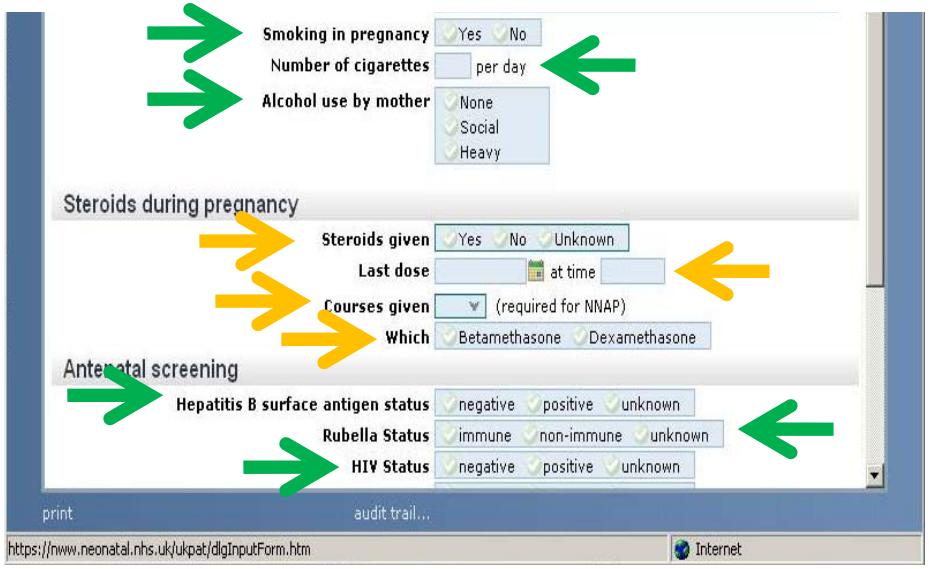
National Neonatal Dataset (for NNAP 2012)

National Neonatal Dataset

Screen : Pregnancy



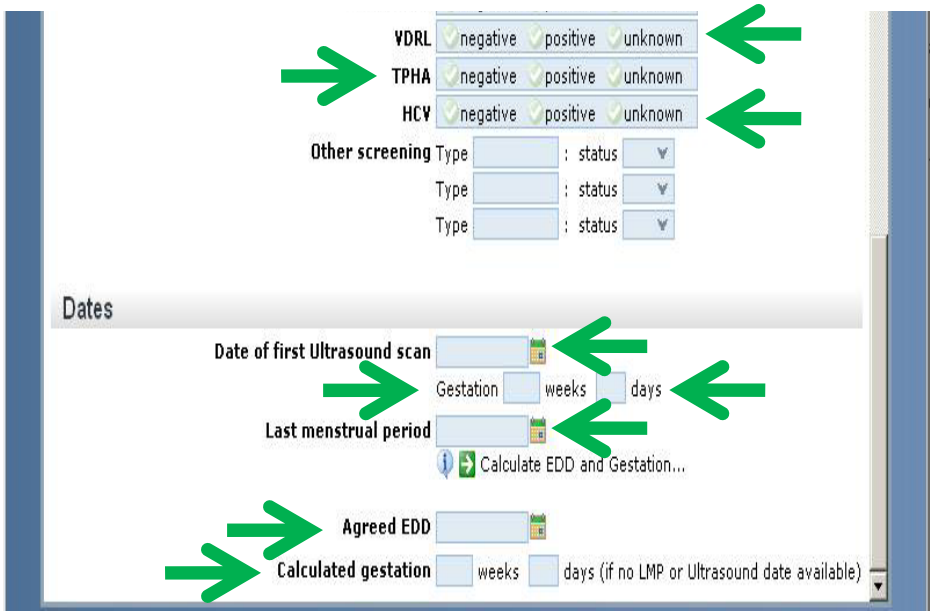
Screen: Pregnancy (continued)



National Neonatal Dataset (for NNAP 2012)

National Neonatal Dataset

Screen: Pregnancy (antenatal screening continued)



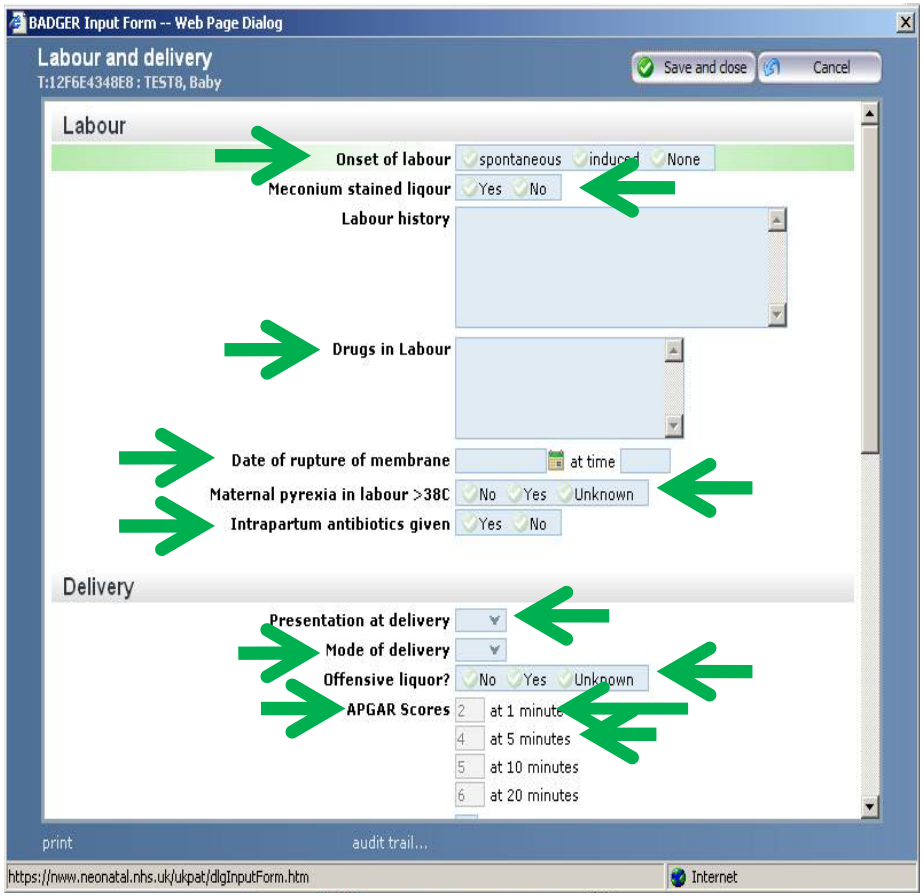
Screen: Previous Pregnancies



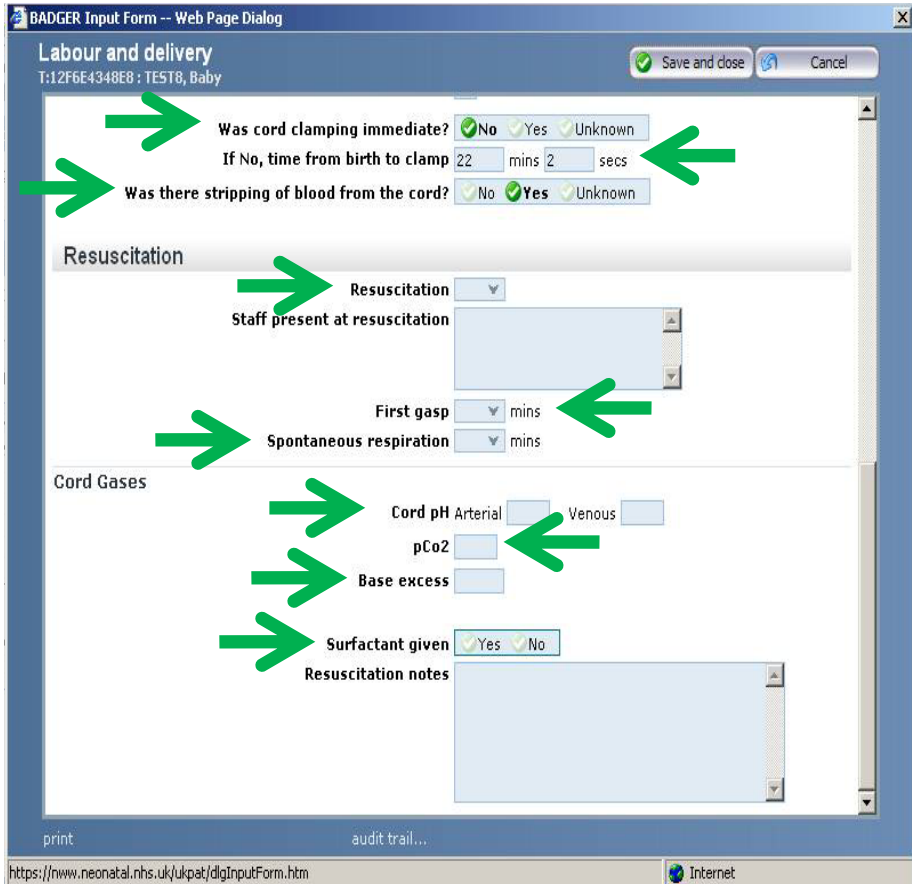
National Neonatal Dataset (for NNAP 2012)

National Neonatal Dataset

Screen: Labour and delivery details form



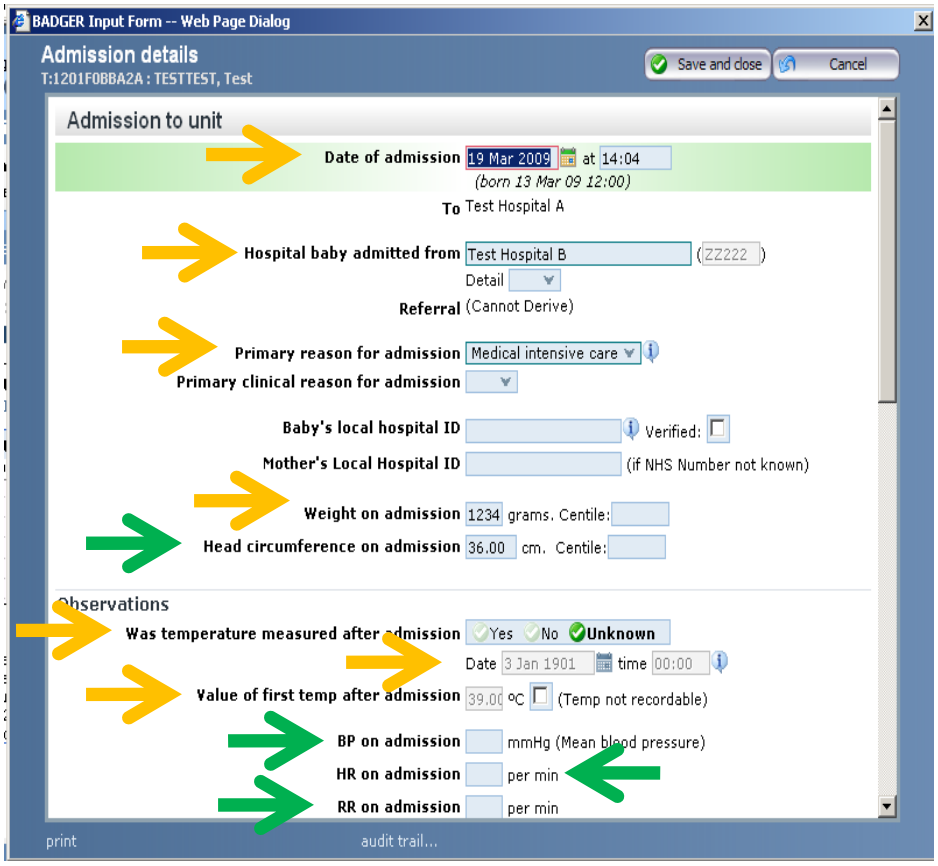
Screen: Labour and delivery details form (continued)



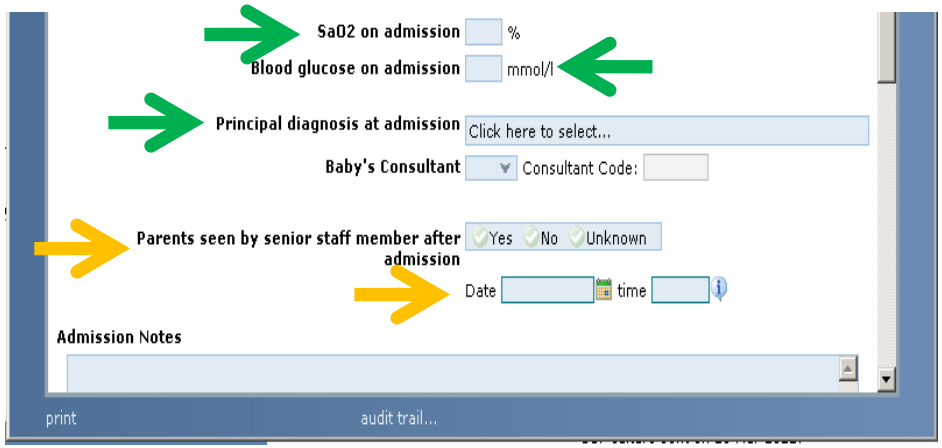
National Neonatal Dataset (for NNAP 2012)

National Neonatal Dataset

Screen: Admission details form



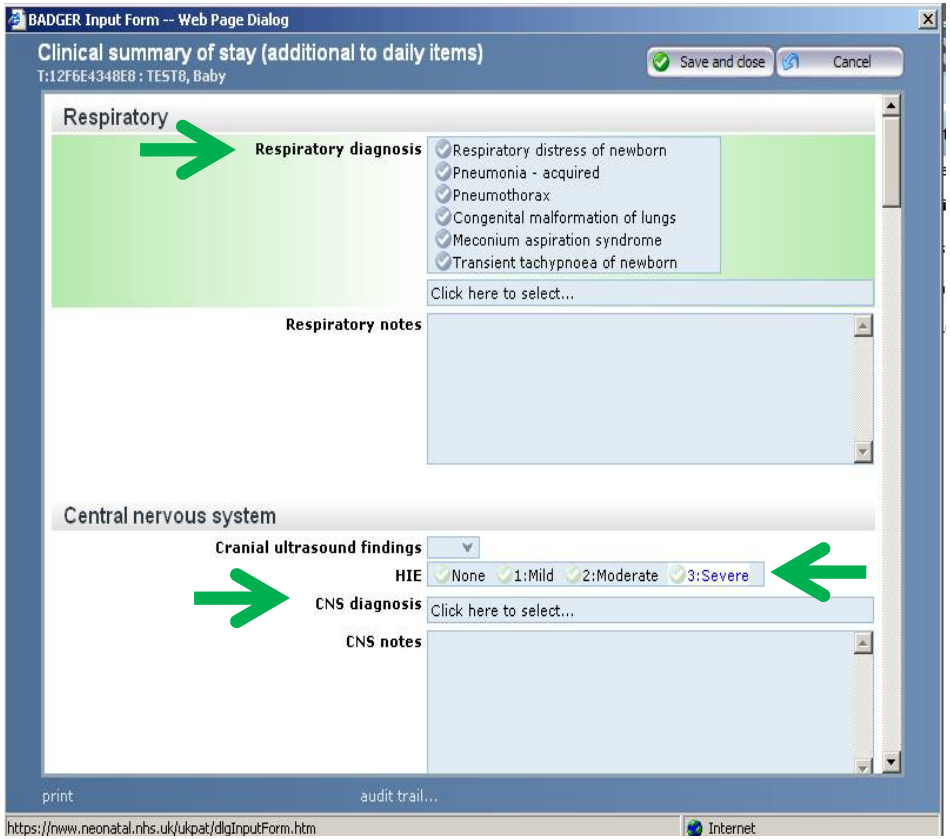
Screen: Admission details form (continued)



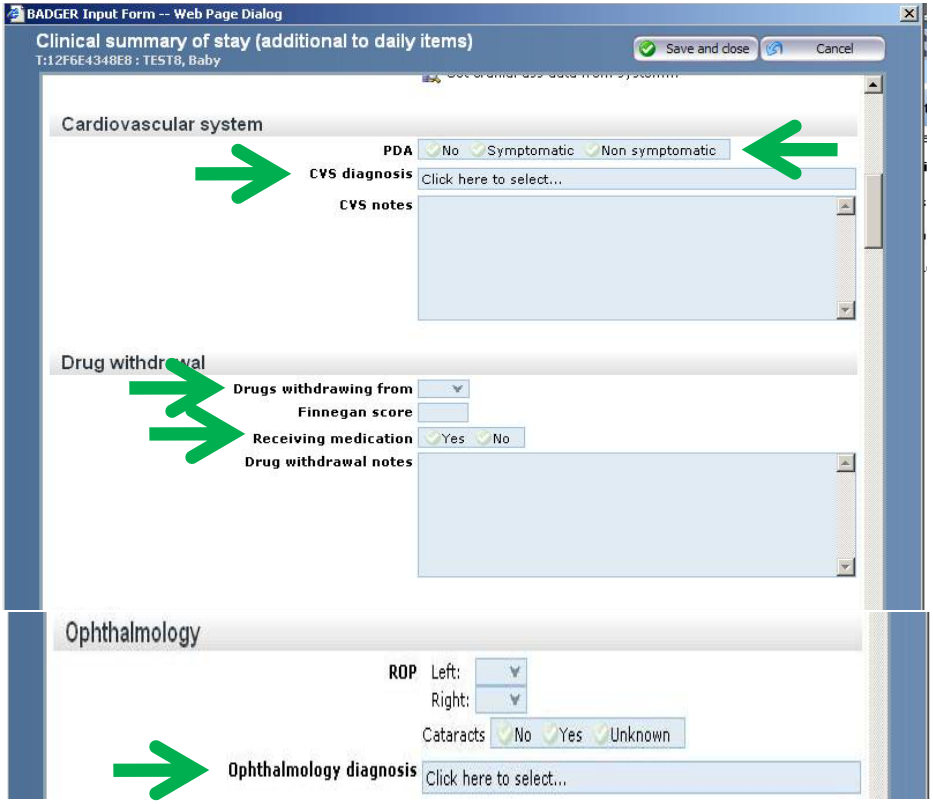
National Neonatal Dataset (for NNAP 2012)

National Neonatal Dataset

Screen: Clinical summary of stay



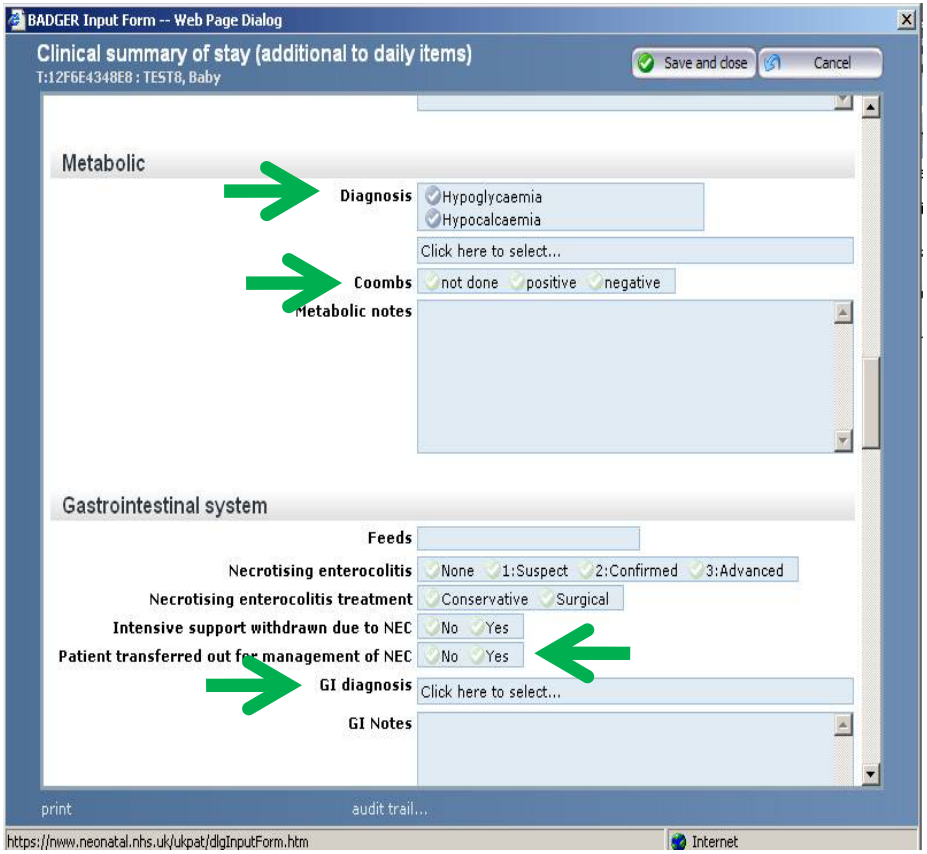
Screen: Clinical summary of stay (continued)



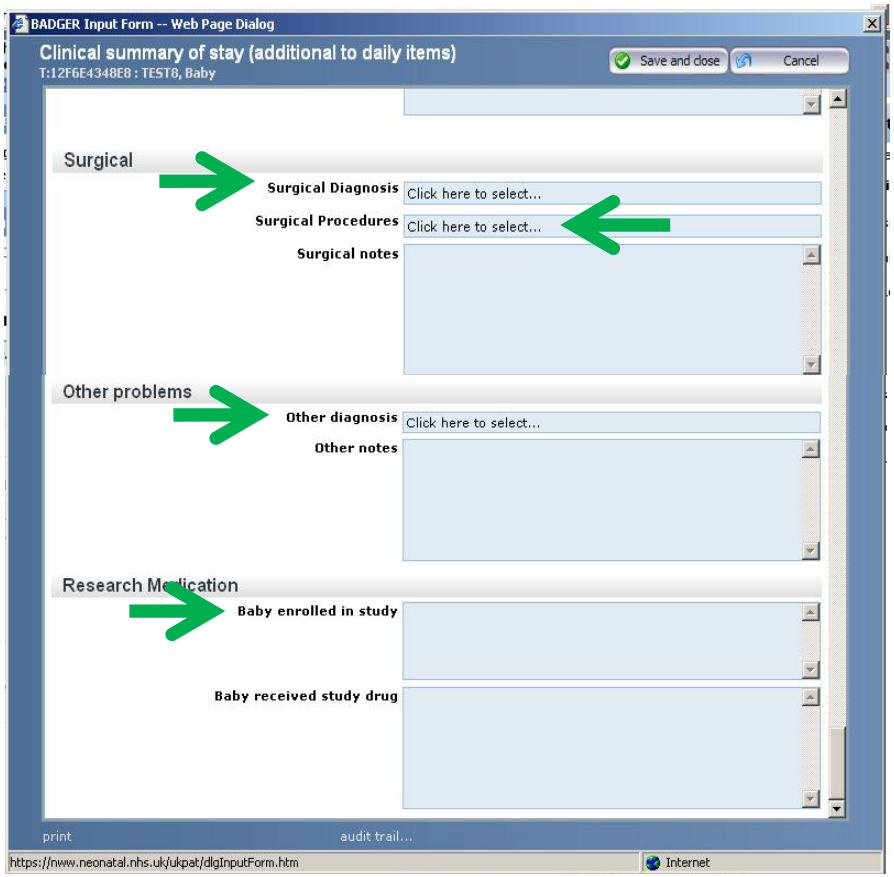
National Neonatal Dataset (for NNAP 2012)

National Neonatal Dataset

Screen: Clinical summary of stay (continued)



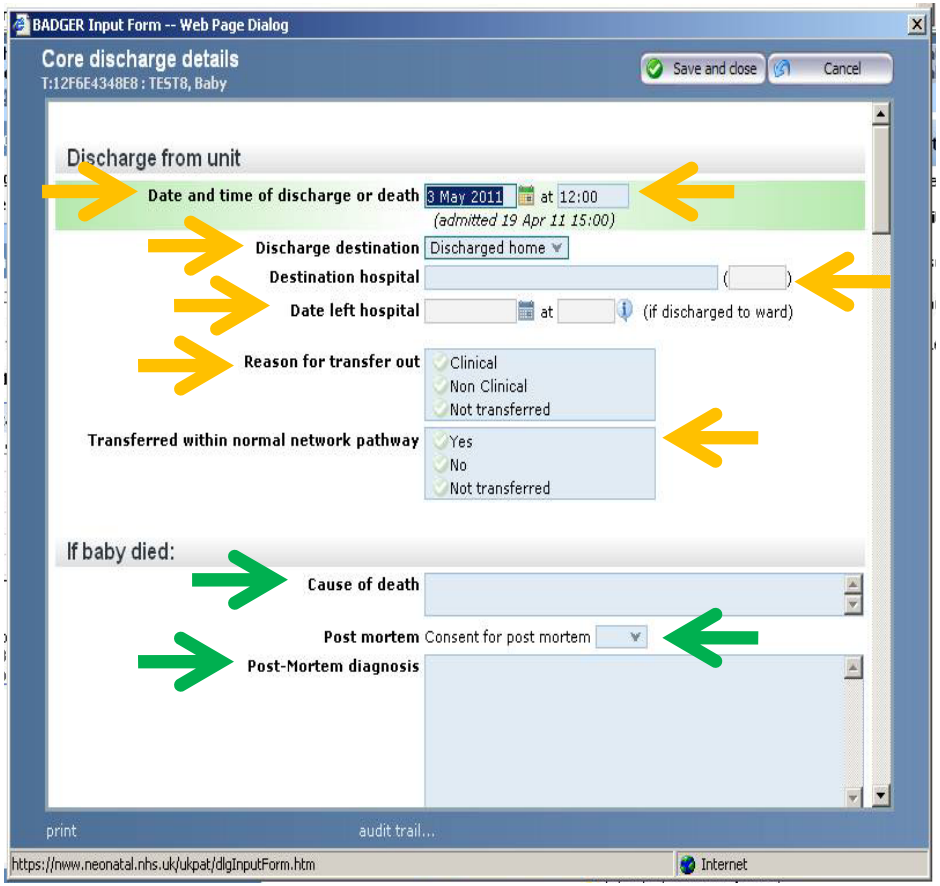
Screen: Clinical summary of stay (continued)



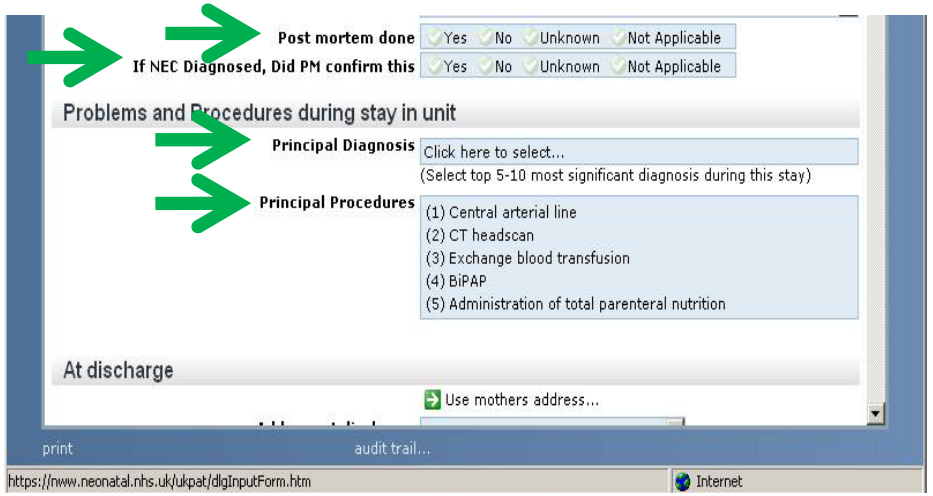
National Neonatal Dataset (for NNAP 2012)

National Neonatal Dataset

Screen: General/Core discharge details form



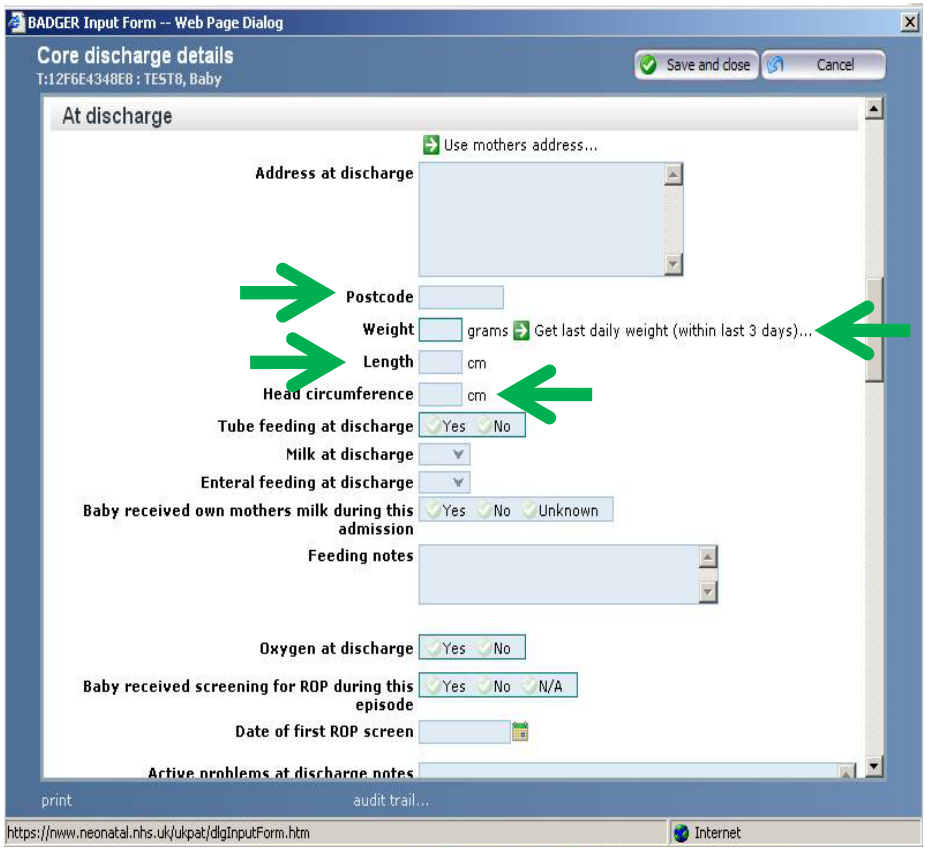
Screen: General/Core discharge details form ('if baby died' continued)



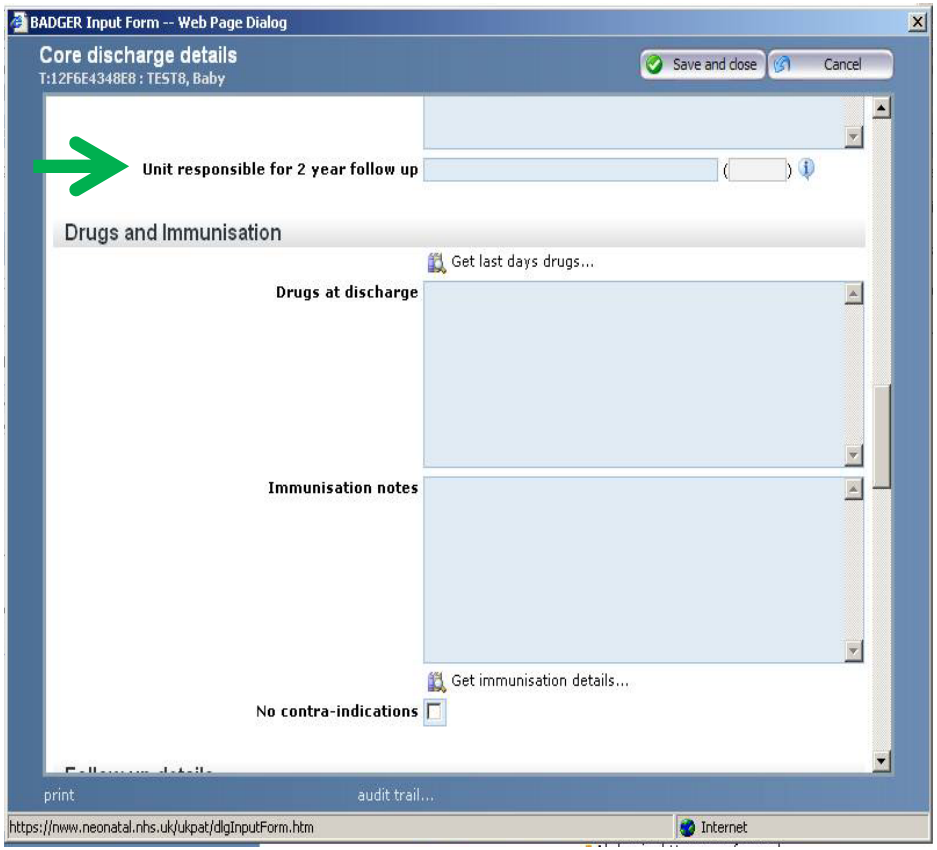
National Neonatal Dataset (for NNAP 2012)

National Neonatal Dataset

Screen: General/Core discharge details form (continued)



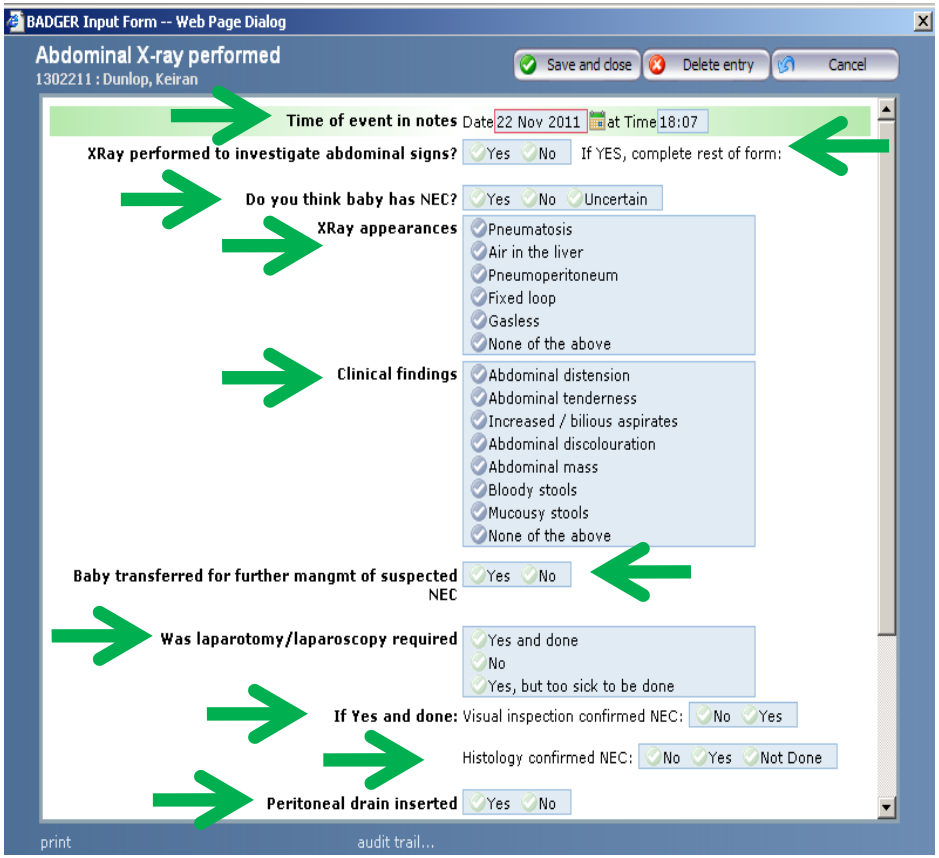
Screen: General/Core discharge details (continued)



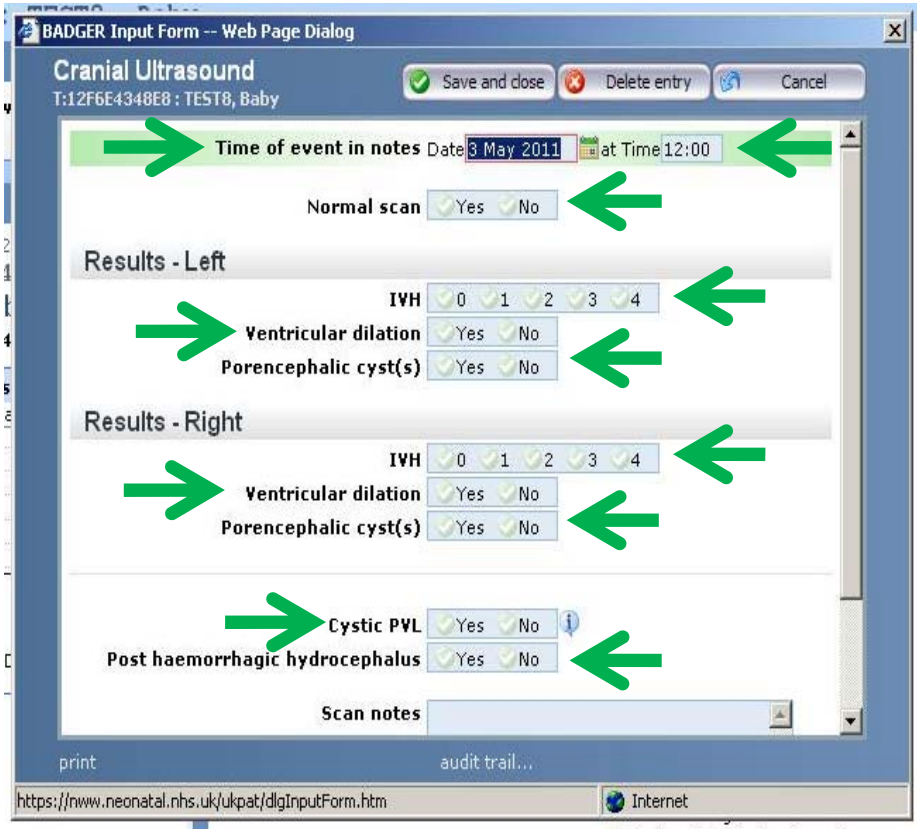
National Neonatal Dataset (for NNAP 2012)

National Neonatal Dataset

Screen: Abdominal X-ray performed



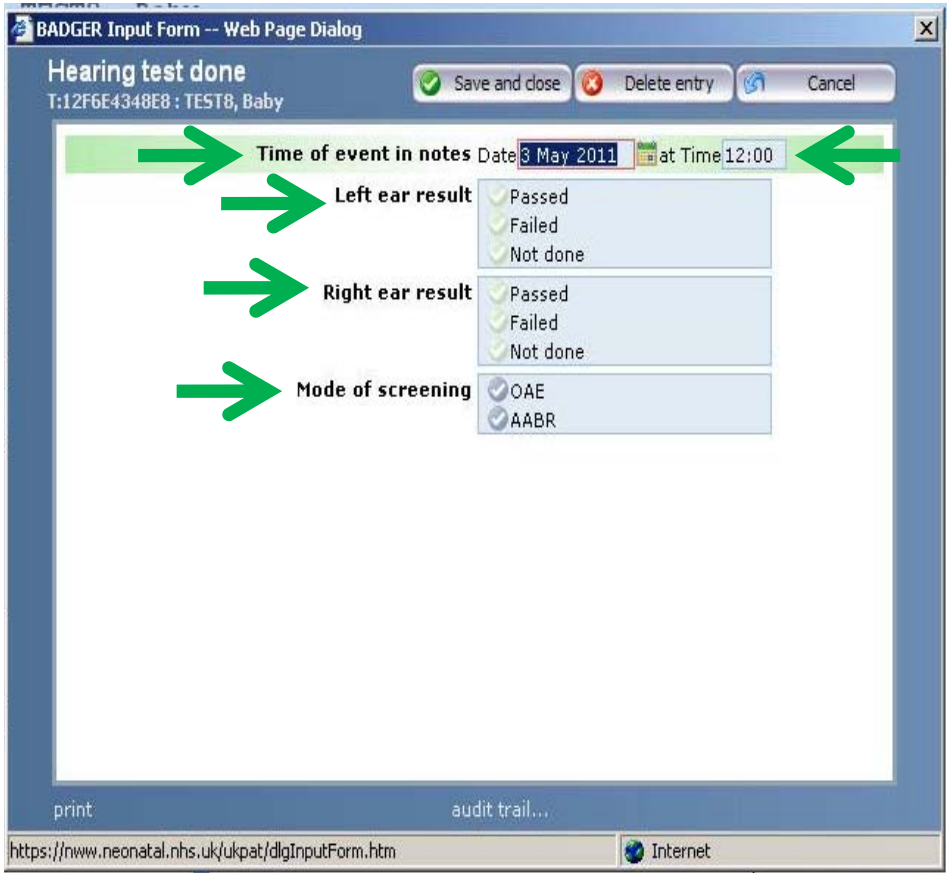
Screen: Cranial USS form



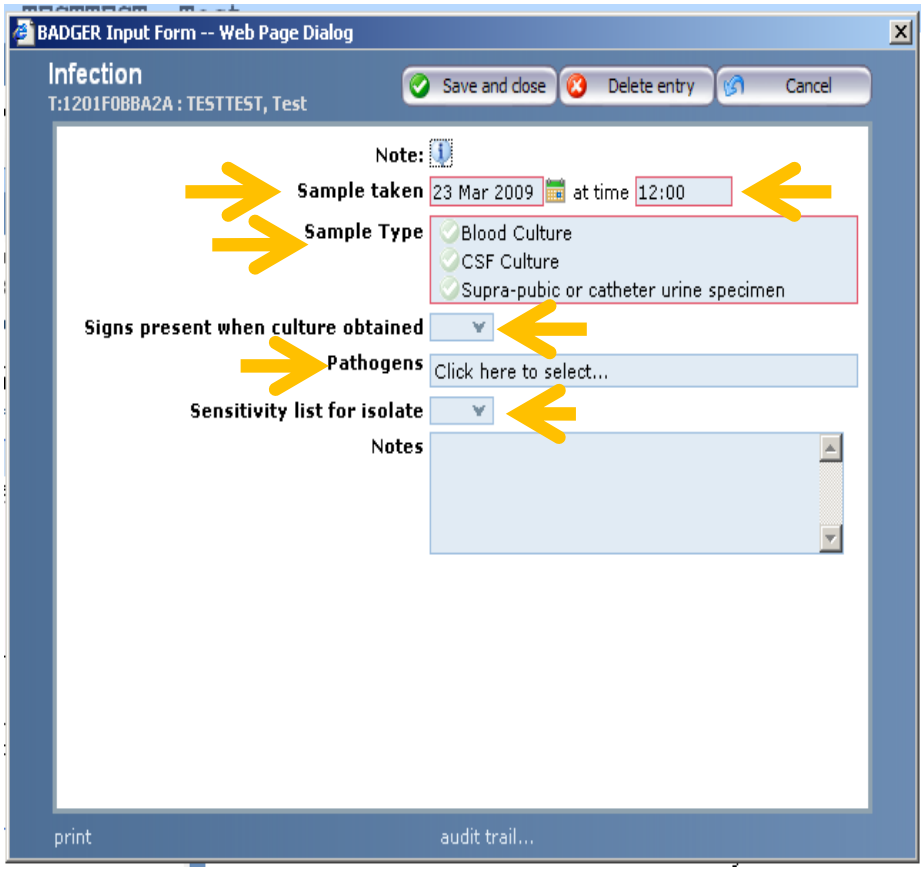
National Neonatal Dataset (for NNAP 2012)

National Neonatal Dataset

Screen: Hearing test form



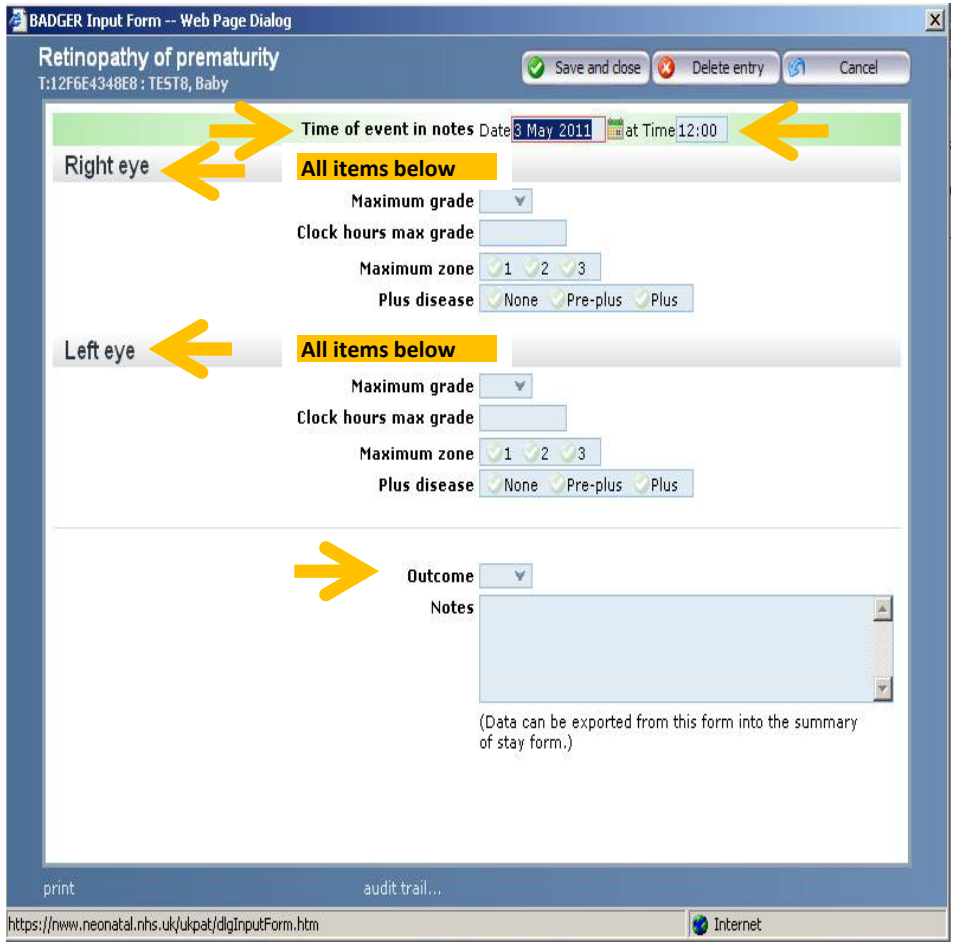
Screen: Infection (culture) form



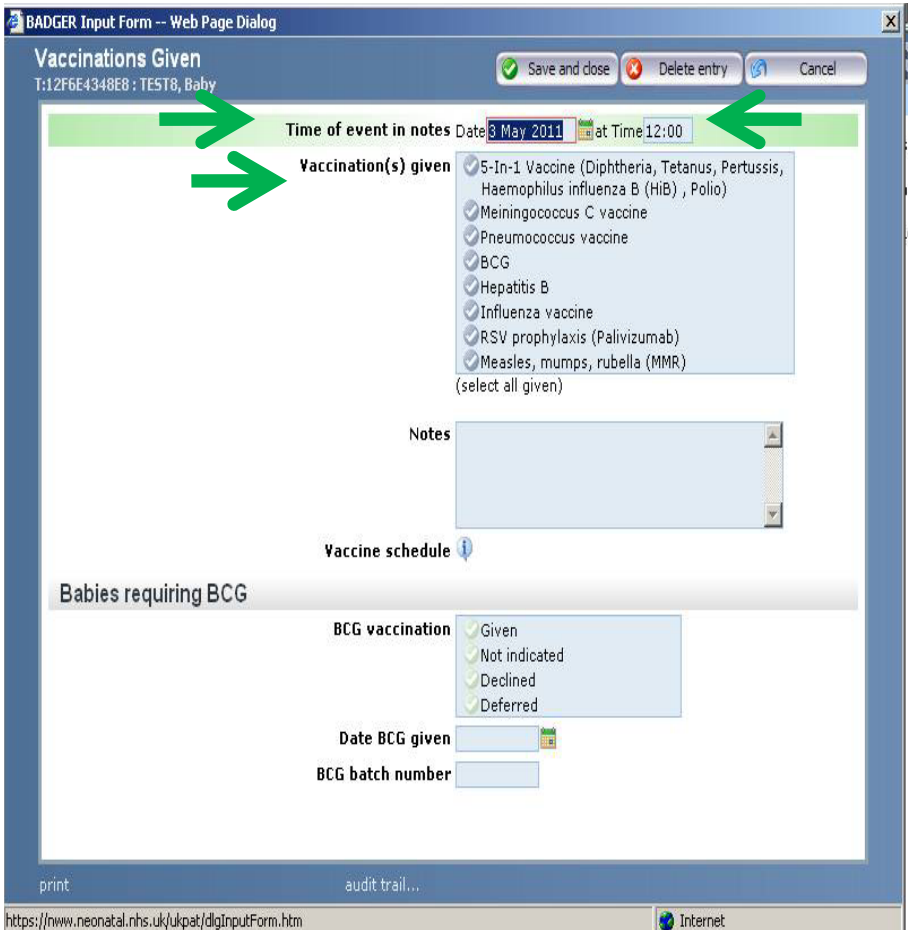
National Neonatal Dataset (for NNAP 2012)

National Neonatal Dataset

Screen: ROP Screen



Screen: Vaccinations given

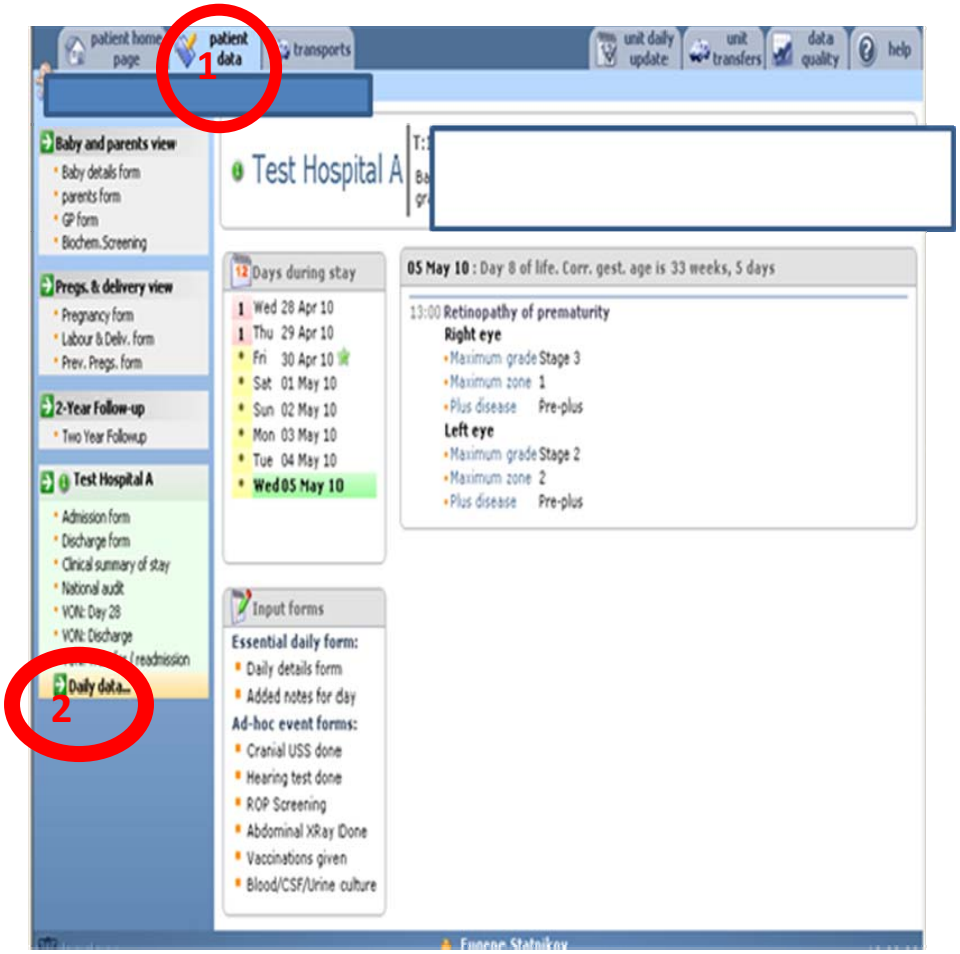


National Neonatal Dataset (for NNAP 2012)

National Neonatal Dataset

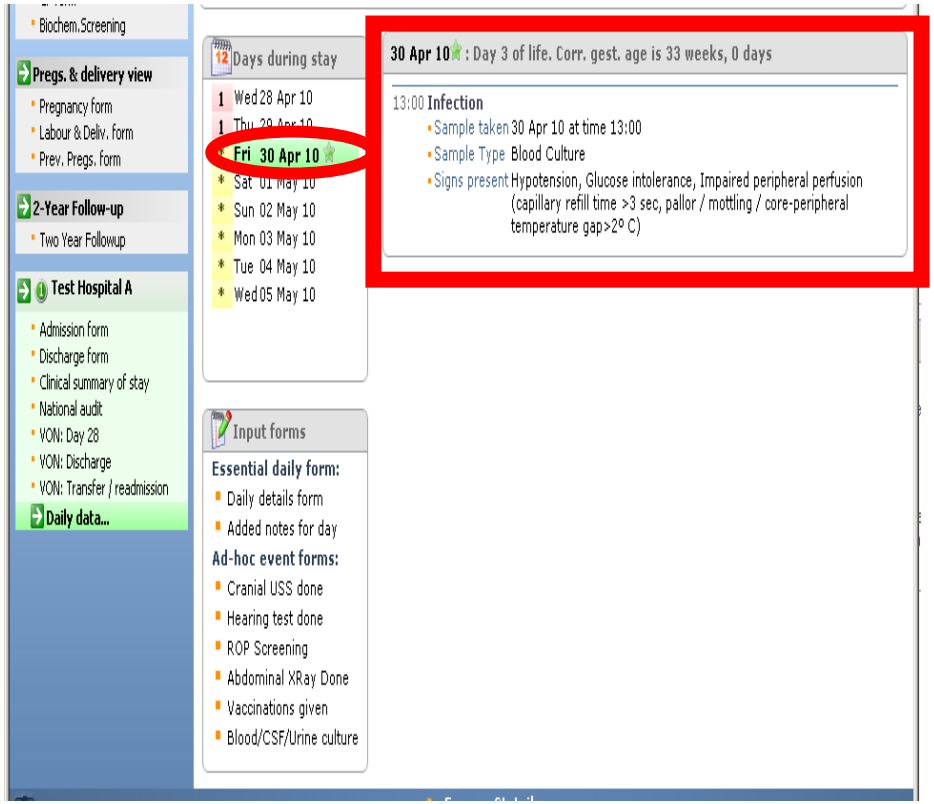
Screen: Patient Data (New tab)

To edit an ad hoc form such as Infection (culture), select 'Patient data' (red circle 1) and then 'Daily data' (red circle 2).



Screen: Patient Data (New tab)

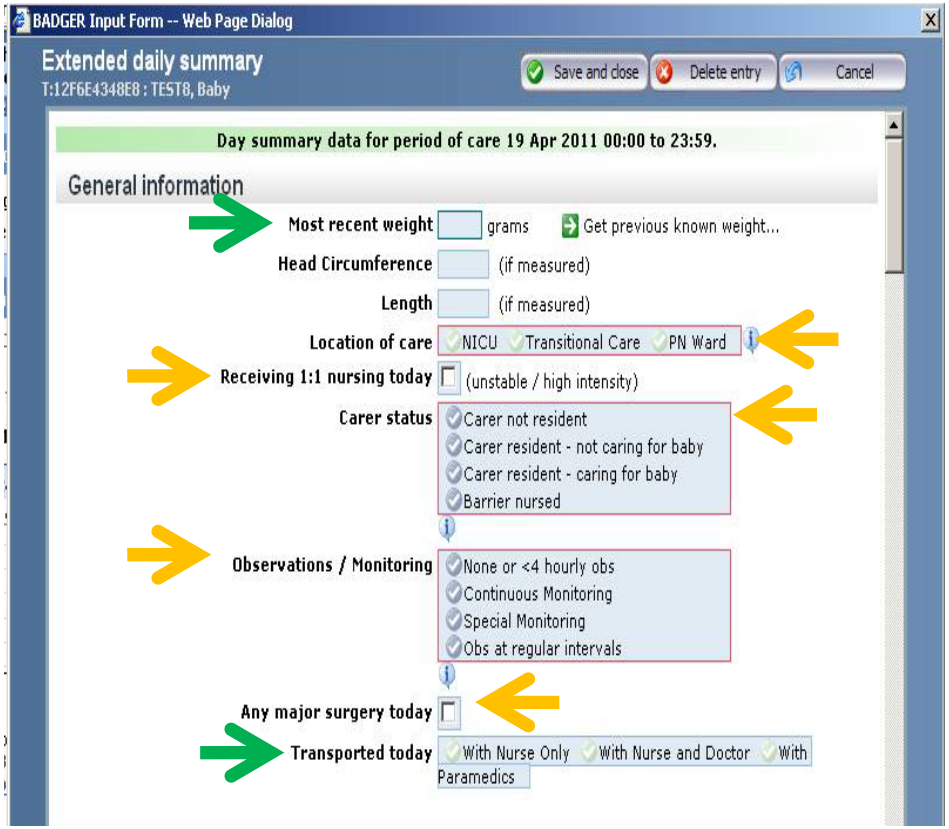
Select the day which has had an ad hoc form filled out (★) to edit the screen.



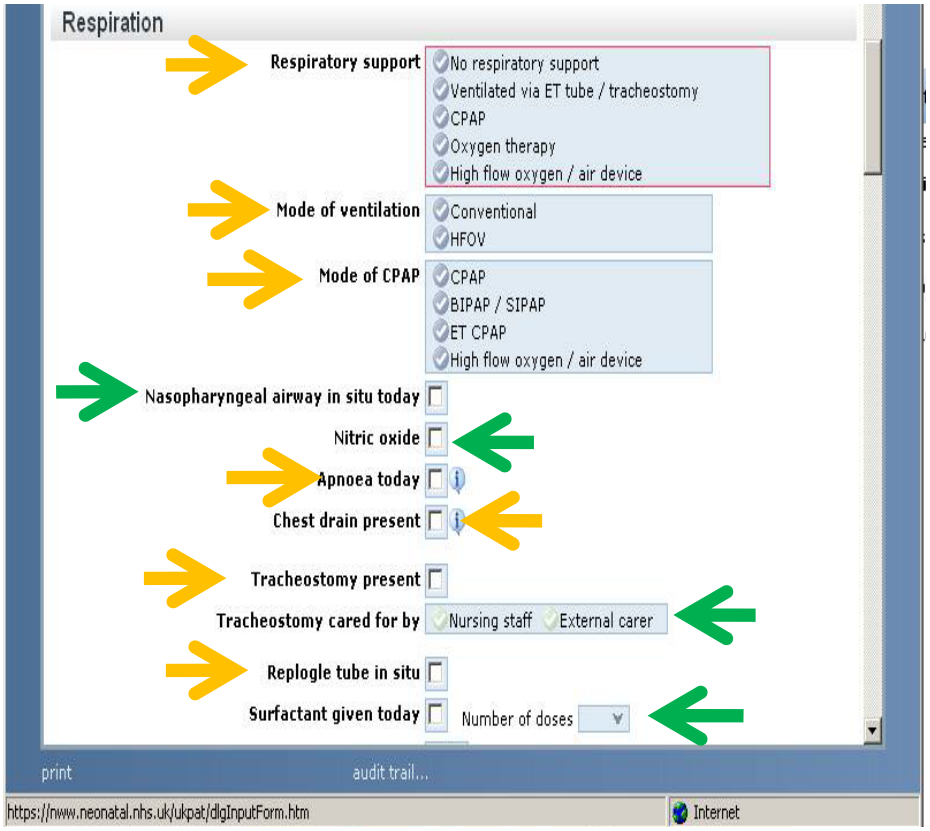
National Neonatal Dataset (for NNAP 2012)

National Neonatal Dataset

Screen: Extended daily summary



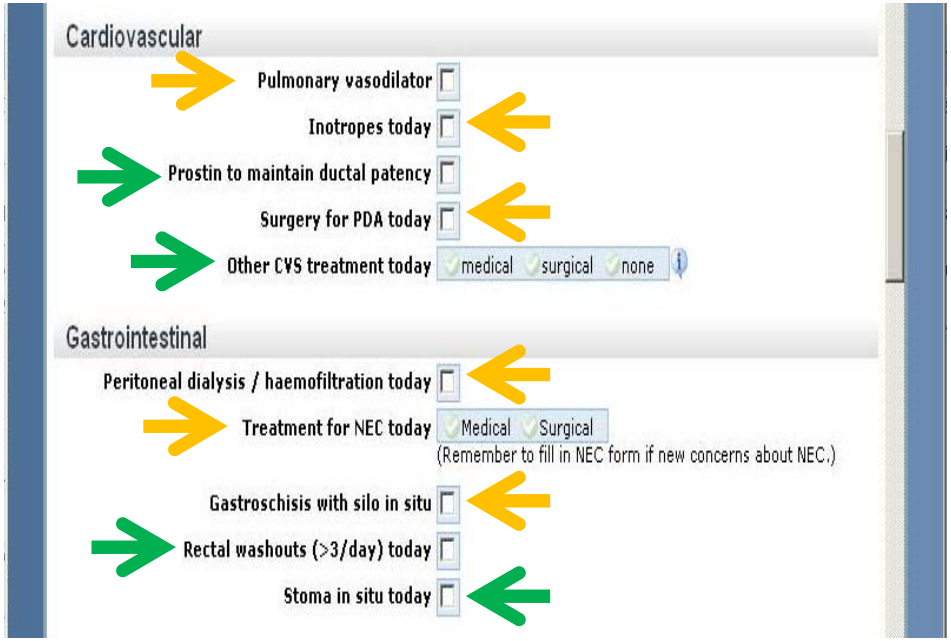
Screen: Extended daily summary (continued)



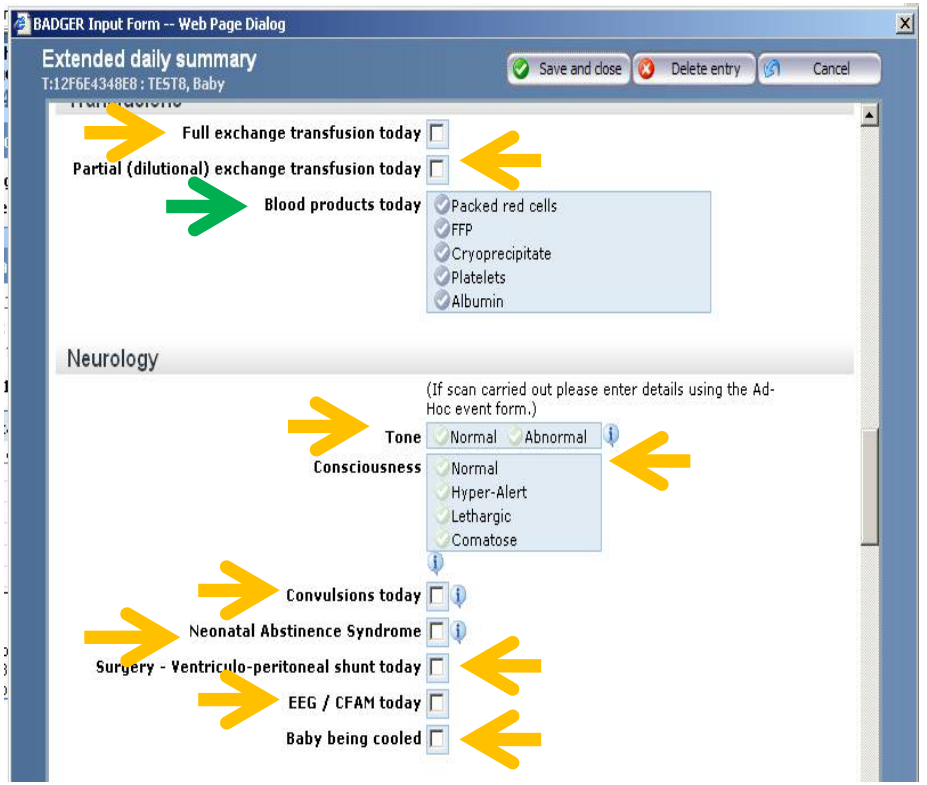
National Neonatal Dataset (for NNAP 2012)

National Neonatal Dataset

Screen: Extended daily summary (continued)



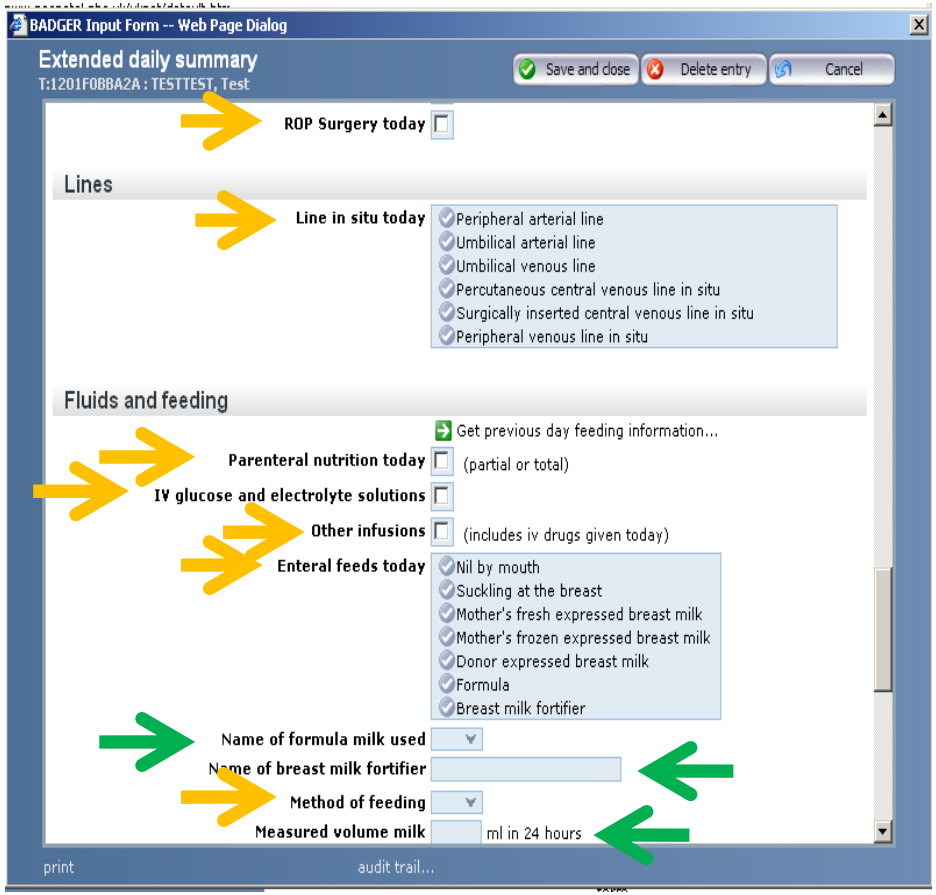
Screen: Extended daily summary (continued)



National Neonatal Dataset (for NNAP 2012)

National Neonatal Dataset

Screen: Extended daily summary (continued)



Screen: Extended daily summary (continued)



National Neonatal Dataset (for NNAP 2012)

National Neonatal Dataset