



# *ACUTE POSTOPERATIVE PAIN*

**APOP:  
A Quality Improvement Initiative**

**Guide to Using the  
APOP e-DUE Audit Tool**

**May 2009**

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## Introduction

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The Acute Postoperative Pain electronic Drug Use Evaluation (APOP e-DUE) Audit Tool is one of the quality improvement activities provided by the National Prescribing Service Limited (NPS) to all hospitals (public and private) who register their details on the relevant NPS website ([http://nps.org.au/health\\_professionals/drug\\_use\\_evaluation\\_due\\_programs/due\\_kit\\_for\\_hospitals/apop](http://nps.org.au/health_professionals/drug_use_evaluation_due_programs/due_kit_for_hospitals/apop)).

Following the collection of de-identified data from a cohort of surgical patients on the management of acute postoperative pain, information is to be entered into the APOP e-DUE Audit tool (APOP e-DUE).


This program will facilitate the collection of audit data and the subsequent generation of an export file and summary report in an electronic format. The summary report is intended to help identify aspects of care in acute postoperative pain management requiring improvement, including outcomes, processes and systems of care.

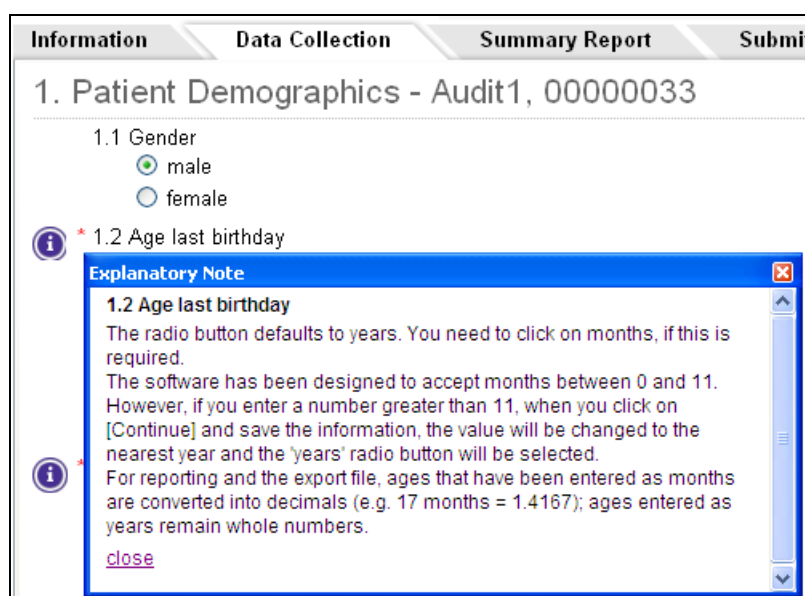
This guide is a resource designed to assist data entry into APOP e-DUE Audit tool. The guide is divided into a number of sections, structured around the hard copy *data collection form*.

### For further information:

- Specific information regarding data collection can be found in the *Guide to Data Collection* – available from the 'Information' tab in the APOP e-DUE Audit tool and on the APOP website

[http://nps.org.au/health\\_professionals/drug\\_use\\_evaluation\\_due\\_programs/due\\_kit\\_for\\_hospitals/apop](http://nps.org.au/health_professionals/drug_use_evaluation_due_programs/due_kit_for_hospitals/apop)

- Within the APOP e-DUE Audit tool, explanatory notes about specific questions can be viewed by clicking on the  beside the question within the 'Data Collection' tab.

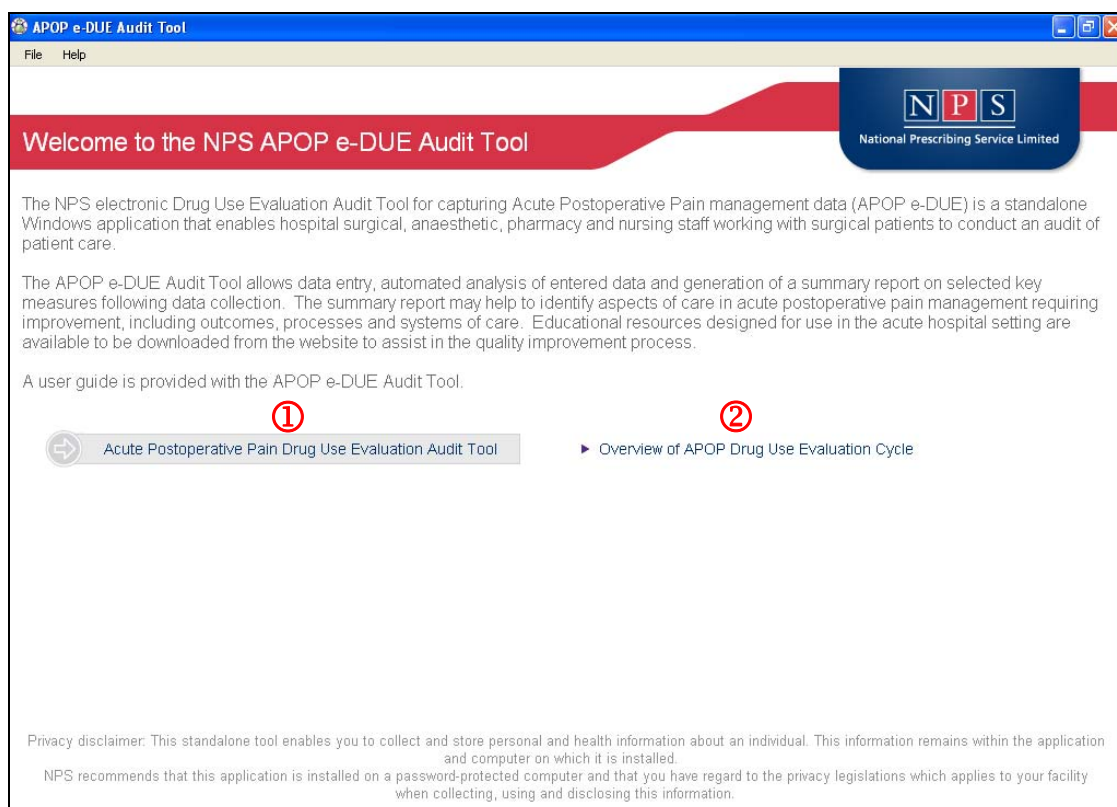


The pop up can be closed by clicking on the cross in the top right corner, or the [close](#) hyperlink. They can also be manoeuvred around the screen to allow you to view both the question and the note, and complete the question.

## 'Welcome' Screen

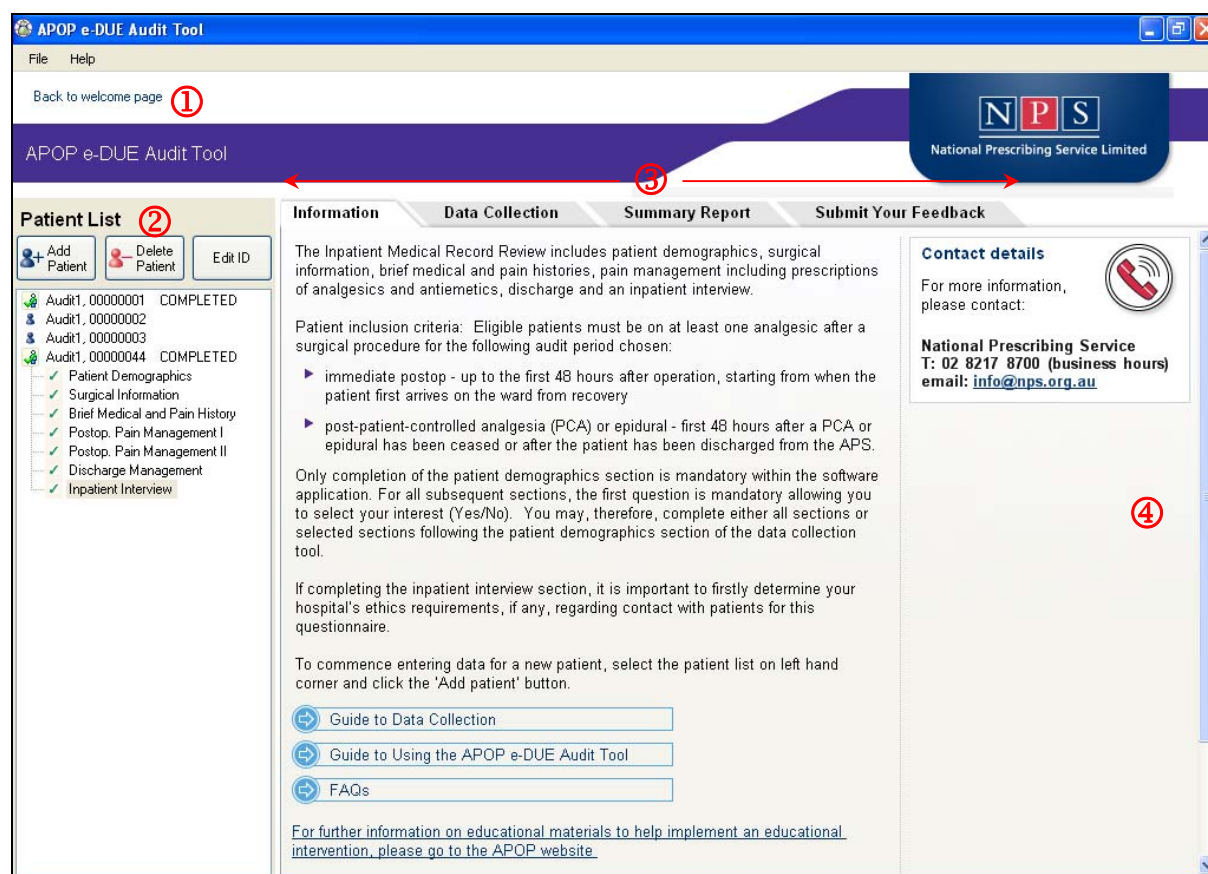
The 'Welcome' screen provides the following

- ① a link to the APOP e-DUE Audit Tool
- ② a link to the overall drug use evaluation (DUE) methodology



Once *APOP e-DUE* is accessed, all screens display two sections or panes:


- The **left hand** pane is the Patient List. This is only required when viewing the 'Data Collection' tab – to select, identify or track entered patients – and can be minimised, if required.
- The **right hand** pane displays four viewing tabs across the top of the screen - Information, Data Collection, Summary Report and Submit Your Feedback. The function of each is described in this document.



Each screen provides the following:

- ① A link to the 'Welcome' page
- ② A 'Patient List' – showing patients for whom data collection has started or is complete. (Clicking on the patient's name will open the relevant data collection page).
- ③ Tabs to navigate between the different program functions:
  - Information – to access relevant documentation and the APOP website
  - Data Collection – to update and view the details of data entered for the highlighted patient
  - Summary Report – to view aggregated data for either Audit1 data or combined (Audit1 and Audit2 up) data
  - Submit Your Feedback – to access a hyperlink to the relevant questionnaire on the APOP website
- ④ a vertical scroll bar to navigate down the screen to see more details.

## 'Information' tab

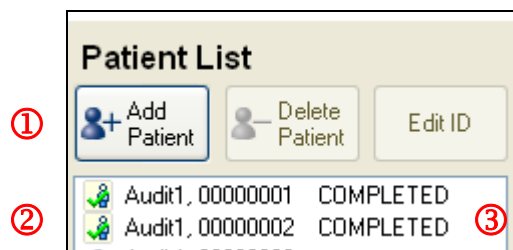
Information	Data Collection	Summary Report	Submit Your Feedback
<p>The Inpatient Medical Record Review includes patient demographics, surgical information, brief medical and pain histories, pain management including prescriptions of analgesics and antiemetics, discharge and an inpatient interview.</p> <p>① Patient inclusion criteria: Eligible patients must be on at least one analgesic after a surgical procedure for the following audit period chosen:</p> <ul style="list-style-type: none"> <li>▶ immediate postop - up to the first 48 hours after operation, starting from when the patient first arrives on the ward from recovery</li> <li>▶ post-patient-controlled analgesia (PCA) or epidural - first 48 hours after a PCA or epidural has been ceased or after the patient has been discharged from the APS.</li> </ul> <p>Only completion of the patient demographics section is mandatory within the software application. For all subsequent sections, the first question is mandatory allowing you to select your interest (Yes/No). You may, therefore, complete either all sections or selected sections following the patient demographics section of the data collection tool.</p> <p>If completing the inpatient interview section, it is important to firstly determine your hospital's ethics requirements, if any, regarding contact with patients for this questionnaire.</p> <p>To commence entering data for a new patient, select the patient list on left hand corner and click the 'Add patient' button.</p> <p>②</p> <ul style="list-style-type: none"> <li><a href="#">Guide to Data Collection</a></li> <li><a href="#">Guide to Using the APOP e-DUE Audit Tool</a></li> <li><a href="#">FAQs</a></li> </ul> <p><a href="#">For further information on educational materials to help implement an educational intervention, please go to the APOP website.</a></p>	<p><b>Contact details</b> ③</p> <p>For more information, please contact:</p>  <p><b>National Prescribing Service</b>  <b>T: 02 8217 8700 (business hours)</b>  <b>email: <a href="mailto:info@nps.org.au">info@nps.org.au</a></b></p>		

Features of this tab:

- ① Details regarding mandatory sections, the patient inclusion criteria, choice of audit period after a surgical procedure and how to commence entering data.
- ② Links to:
  - Guide to Data Collection
  - Guide to Using the APOP e-DUE Audit Tool
  - FAQs
  - Additional educational materials via the NPS APOP website.
- ③ Contact details for submitting queries

## Patient List

This functionality manages the patients within the APOP e-Due Audit Tool and allows the user to see the completeness status.



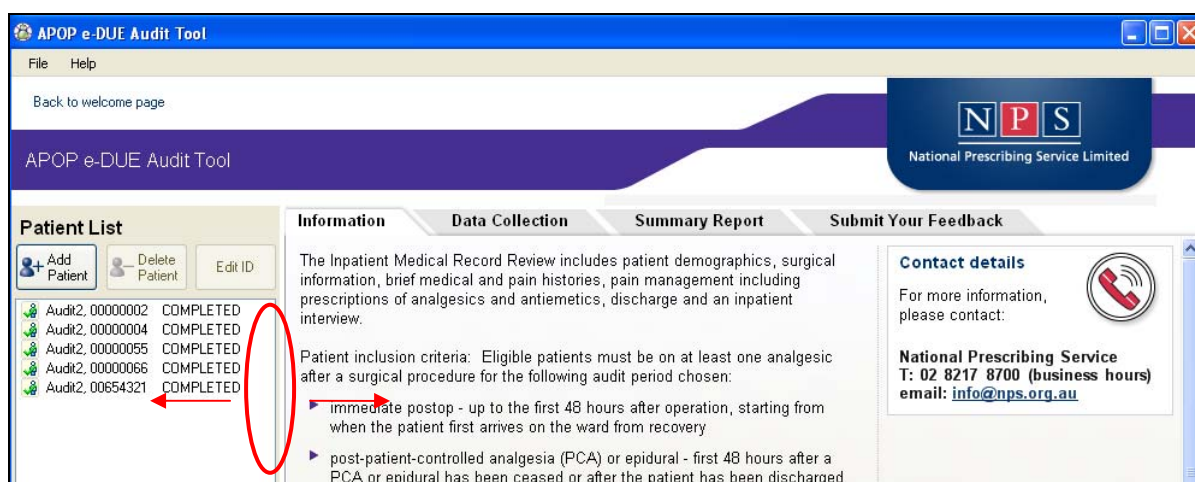
Features of this section:

- ① Buttons to access screens that allow modifications to the Patient List:
  - [Add Patient] button to enter the Data Collection and patient number.
  - [Delete Patient] button to remove a patient and related data
  - [Edit ID] button to change the audit period and/or patient number.
- ② Details of data collection and patient no.
- ③ completeness status

Patients are listed in order of data collection (i.e. Audit1 before Audit2) then Patient No. (i.e. 2 before 435) so that all patients from the same data collection are grouped together.

### To resize the Patient List pane

1. Hover the cursor over the vertical line that separates the panes until it changes shape.
2. Click and drag the slim vertical line to the left or right. This will alter the size of the screen within the tab sections accordingly.



## To start data entry for a new patient

1. Select the [Add patient] button in the Patient List.

2. Complete the two separate data fields:

- Data Collection - either Audit1 or Audit2.

Once you have selected Audit2, this will be the default - until a different option is selected - to make it easier to enter Audit2 data.

- Patient No. (Patient Number)

The tool allows for 8 digits. If you enter less than 8 digits, leading zeros will be entered so that the patient numbers are sorted in the correct order. (E.g. if you enter 6789, it will display as 00006789)

3. After completion, click [OK]

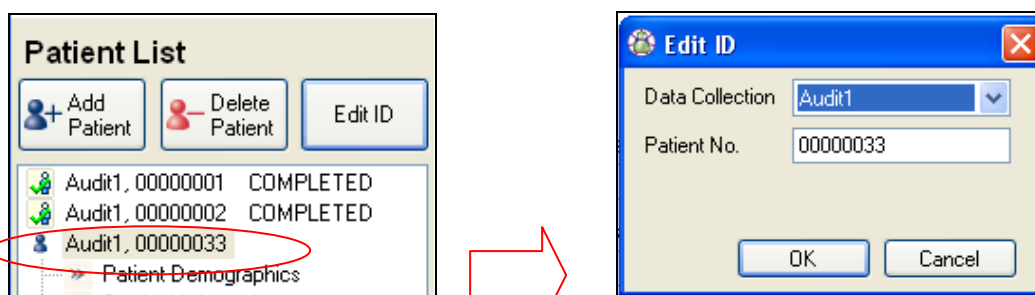
The database will then display the data collection screen for that patient.

4. Check the detail in the header that shows the section title, the data collection period and patient's number (e.g. Patient Demographics – Audit1, 00000025) and, if it is not correct, use the 'Edit ID' button to make adjustments.

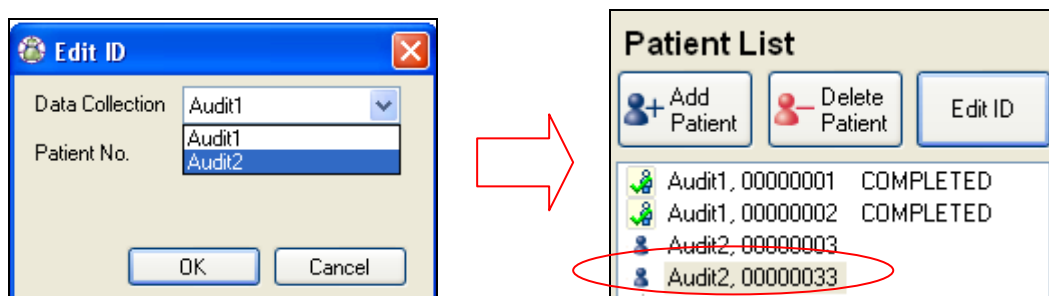
## To change the patient number and/or data collection

1. Highlight the patient in the Patient List
2. Select the [Edit ID] button in the Patient List.

This pop up window then populates with the information currently filed.



- Use the drop down to change the data collection and/or edit the 'patient no.' field.



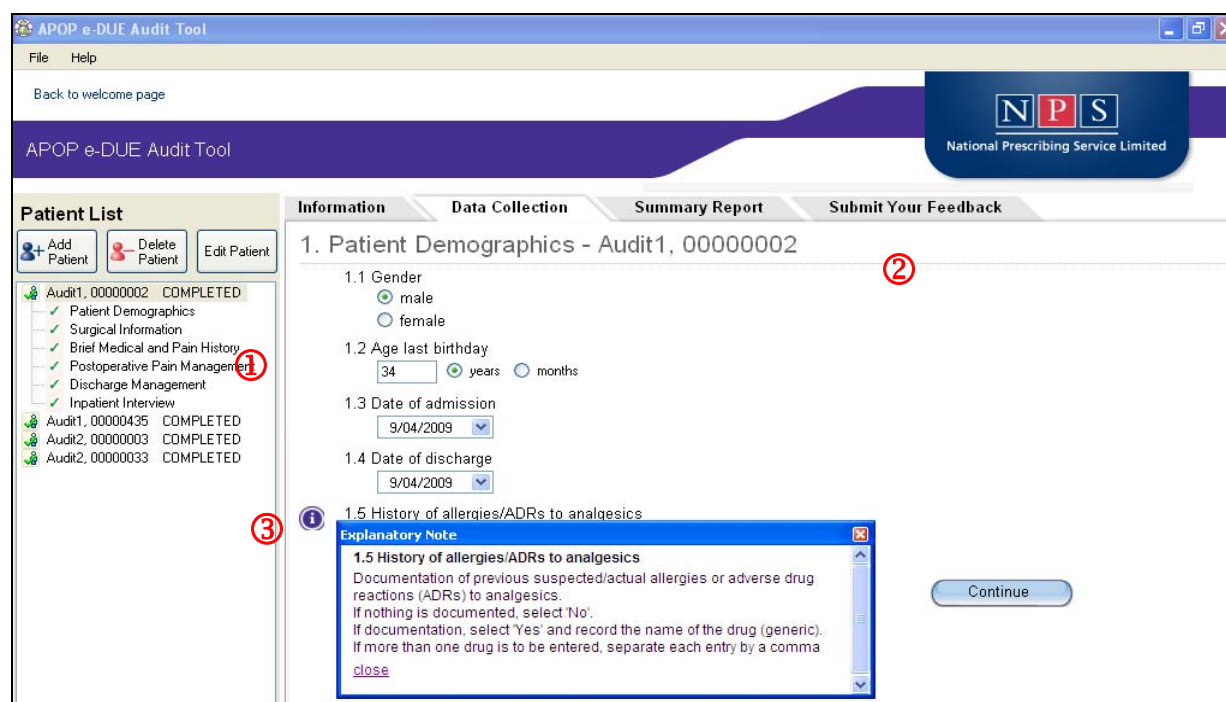
- Click on [OK] to update the details (which now display in the Patient List)

## 'Data Collection' tab


Please note the following key points relating to data entry:

- All information collected on the data collection form is an account of what has been documented in the patient's medical notes or equivalent. Please ensure that all information collected is based on what has been documented. If it is not written down, it should not be included on the data collection form.
- All medications must be entered using the generic drug name. Within the APOP e-DUE Audit Tool, an appendix within the Guide to Data Collection contains this information – accessible via a hyperlink on the 'Information' tab. In addition, this document can be downloaded from the APOP website: [http://nps.org.au/health\\_professionals/drug\\_use\\_evaluation\\_due\\_programs/due\\_kit\\_for\\_hospitals/apop](http://nps.org.au/health_professionals/drug_use_evaluation_due_programs/due_kit_for_hospitals/apop). Other drug references (e.g. Australian Medicines Handbook, MIMS) may also be useful.

If a medication is not included in the table, search for 'other' to locate a number of options that have been included to allow the 'other' entered to be matched to the relevant class of analgesic or antiemetic (e.g. other Cox-2 inhibitor; other antihistamine).



Features of this tab:

- ① The section highlighted in the Patient List panel corresponds with the section of the data collection displayed in the tabbed panel.  
You can navigate to the relevant data collection screen to review, edit or complete data by clicking on the section in the Patient List, or by using the navigation buttons (i.e. [Continue] and [Back]).
- ② Each page has a heading that shows the section title, the data collection period (e.g. Audit1, Audit2) and patient's number.
- ③ A purple information symbol -  - indicates where there is an explanatory note about the question. By clicking on the symbol, you are able to view relevant information.

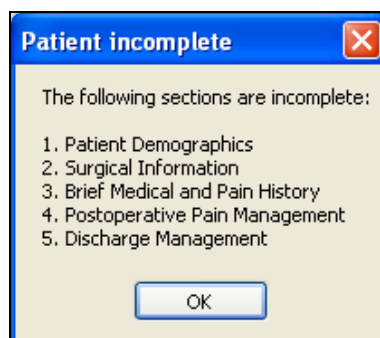
## General Data Entry Rules and Tips

### Mandatory sections

All sections are mandatory. In Section 1 – Patient Demographics – all questions need to be answered. In Sections 2-6, at least the first question must be answered.

If 'yes' is selected as the answer, then additional questions are displayed and all must be answered for data collection to be complete.

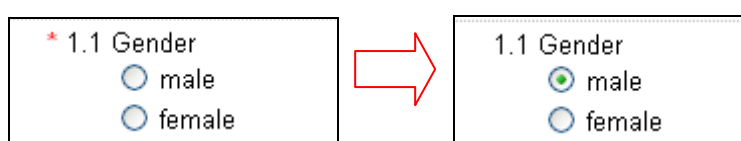
When you click on [Continue] in the final section, the sections that are incomplete will be identified:



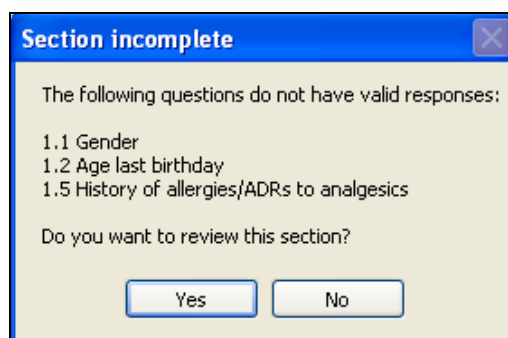
On selection of [OK], you will be navigated to the first incomplete section.

### Mandatory questions

A question that is mandatory displays with a red asterisk. As the question is completed, the asterisk disappears.



If a mandatory question is incomplete when the [Continue] button is selected in any section, a 'Section incomplete' pop up will identify the questions still to be completed.



By selecting [Yes], you have the opportunity to review the incomplete questions and possibly finalise them.

By selecting [No], you will be navigated to the next section. You can return to incomplete questions at any time to finalise them by clicking on the section in the Patient List.

### Types of responses

Questions function in a variety of different ways:

- **Single response items**

For items where only one response is allowed, circles/radio buttons appear in front of the choices.

To select the option, simply click on the wording or the circle in front of it.

To change the option, simply select the required option.

- **Multiple response items**

This will be shown with squares in front of the choices. Items can be selected by checking the box beside the corresponding item.

Selection of 'none of the above' will remove all other choices.

- **Free text** – where you can enter additional information
- **Table** – where there are columns with different types of functionality:

- Drop down lists – where one option is selected from the list.

To select the option, simply click on the arrow and highlight the required option which then appears in the text box.

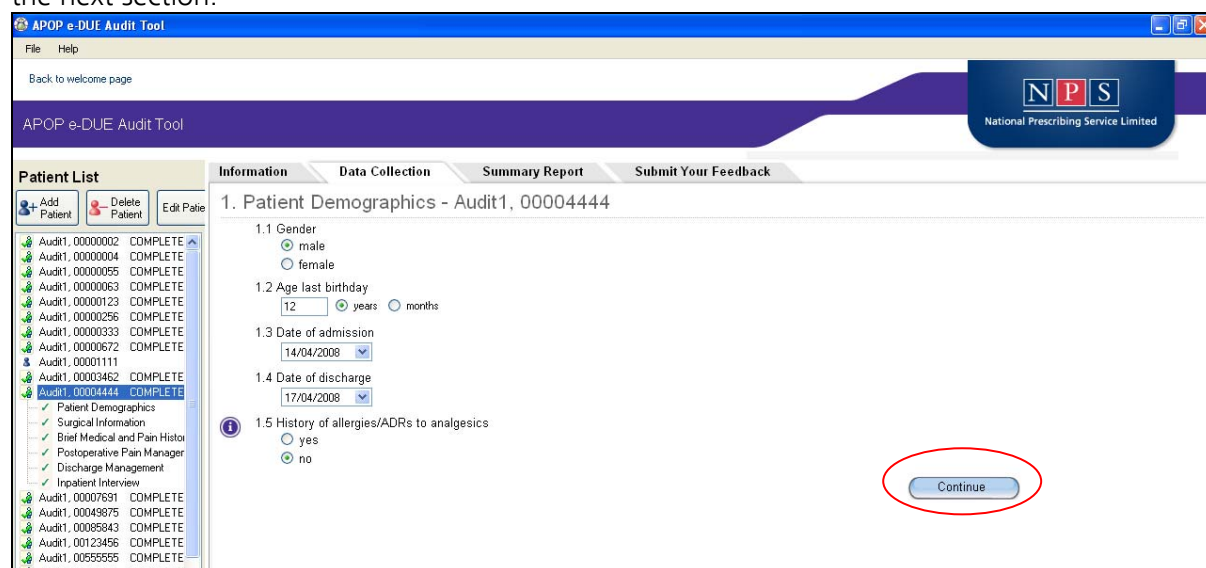
Where the list is lengthy, you can navigate quickly to the relevant section by typing the first part of the required option (e.g. 'par' to search for 'paracetamol', 'peth' to search for 'pethidine').

If you do not locate the required drug, type 'other' to search a number of options related to drug class that are at the bottom of the list.

- Text box – where you can type the required information. If a number is to be entered, type as a numeral not a word.
- [Add] button – to create another row in the table.
- [Remove] button – to remove a row in the table. You cannot delete the final row.

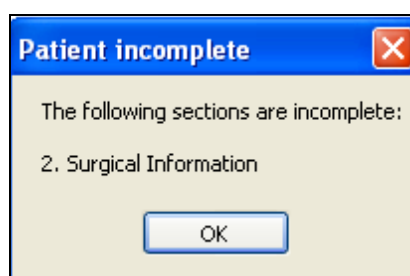
## To complete a screen

When you have finished entering data in a section, select the [Continue] button to move on to the next section.



When all data have been entered, click [Continue] on the last screen to complete the data entry process.

If any items have been missed (i.e. blank data entry fields), a warning message will appear, identifying which sections need to be reviewed:



Clicking [OK] will take you back to the first section in which data was not entered. The incomplete questions will be identified by a red asterisk (\*) beside the question.

**Information**   **Data Collection**   **Summary Report**   **Submit**

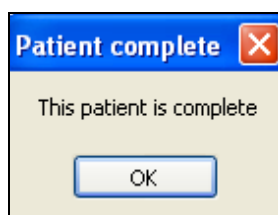
**5. Discharge Management - Audit1, 00000003**

Discharge management audited?  
 yes  
 no

5.1 Were analgesics prescribed at discharge?  
 yes  
 no

\* 5.2 Was an antiemetic(s) prescribed at discharge?  
 yes  
 no

Complete each item, select [Continue] and once all missed items are complete, the program will inform you that this patient is complete.



Select [OK] to close this patient's 'Data Collection' page and return to the 'Information' page. From here, you can click on [Add Patient] to add a new patient.

## 1. Patient Demographics

**Information**   **Data Collection**   **Summary Report**   **Submit Your Feedback**

**1. Patient Demographics - Audit1, 00000003**

1.1 Gender  
 male  
 female

**i** \* 1.2 Age last birthday  
  years  months

1.3 Date of admission  
 [v]

1.4 Date of discharge  
 [v]

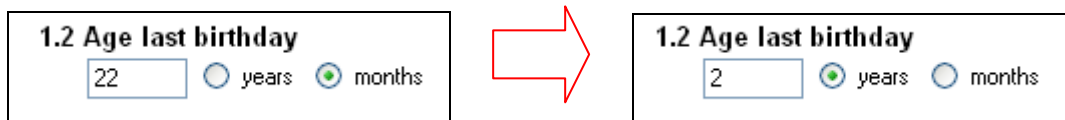
**i** \* 1.5 History of allergies/ADRs to analgesics  
 yes  
 no

Continue

### 1.2 Age last birthday

This question is unusual in that it includes both a free text field and a single response button which defaults to 'years'. You need to click on 'months' for a neonate, if this is required.

The software has been designed to accept months between 0 and 11. However, if you enter a number greater than 11 and select 'months', when you click on [Continue] and save the information, the value will be converted to the nearest year and the 'years' circle/radio button will be selected. Thus, you will only see this once you return to the page.

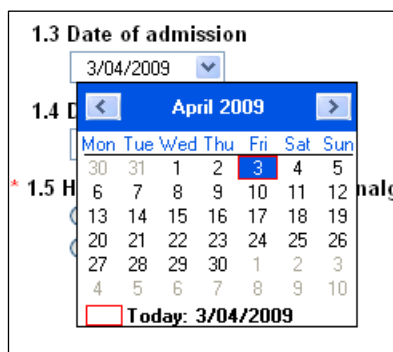


For reporting and the export file, ages entered as months are converted to decimals. If you enter 2 years, it will be exported as 2 years. If you enter 22 months, it will be converted to the nearest year and appear on screen as 2 years (once you click on [Continue]). However, in the export file and for calculations associated with the summary report, it would be converted to 1.8333 years, rather than 2 years.

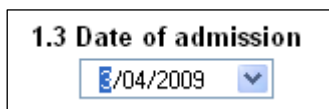
### 1.3, 1.4 Date of admission and discharge

Date fields default to the current date and, therefore, do not display as mandatory. If you do not change the dates, the software will still consider that you have completed them and not highlight that they have not been changed.

You can select a date from the calendar, by clicking on another day in the same month or using the arrows to scroll to another month and then clicking on the required day.



You may also highlight the relevant section of the date and retype the correct date.



**When changing the date to the end of the month, you first need to check whether the month displayed has that number of days. If not, you will need to adjust the month first (i.e. changing the day to '31' in the above example would not work because there are only 30 days in April, so you need to change the month first)**

#### Date validations

A series of warning messages have been programmed to appear if you enter a date that is not valid.

- If you enter a discharge date that is earlier than the date of admission a warning will appear, prompting you to check the date you have just entered.

**1.3 Date of admission**

**1.4 Date of discharge**  
Date of discharge must be equal to or later than date of admission

- If you change the admission date after the date of discharge has been entered to an invalid date, the following will display:

**1.3 Date of admission**  
Date of admission must be equal to or earlier than date of discharge

**1.4 Date of discharge**

### 1.5 History of allergies/ADRs to analgesics

This is documentation of previous suspected/actual allergies or adverse drug reactions (ADRs) to analgesics. If no allergy or adverse drug reaction (ADR) to analgesics is documented, select 'No'. If an allergy/ADR is documented to an analgesic, select 'Yes' and record the name of the drug (generic). If more than one drug is to be entered, separate each entry by a comma.

## 2. Surgical Information

If data on surgical information has been audited, select 'yes' to allow you to view questions 2.1, 2.2, 2.3 and 2.4.

If data on surgical information has not been audited, select 'no' and click on [Continue] to move to the next section.

<b>Information</b>	<b>Data Collection</b>	<b>Summary Report</b>	<b>Submit Your Feedback</b>
--------------------	------------------------	-----------------------	-----------------------------

**2. Surgical Information - Audit1, 00000003**

Surgical Information audited?  
 yes  
 no

\* 2.1 Surgical procedure:

**i** \* 2.2 This surgery was:  
 elective  
 emergency  
 unknown

\* 2.3 Did the patient attend a pre-admission clinic?  
 yes  
 no

**i** \* 2.4 Was preop patient education regarding postop pain management options documented?  
 yes  
 no

### 2.1 Surgical Procedure

This is a free text field. Type in the actual operation or surgical procedure being performed.

### 3. Brief Medical and Pain History

If data on medical and pain history have been audited, select 'yes' this will allow you to answer question 3.1.

If data on medical and pain history have not been audited, select 'no' and click on [Continue] to move to the next section.

#### 3.1 Please indicate if any of the following were DOCUMENTED in the patient's admission notes

If 'Regular analgesic use' was selected, then the section headed 'Please specify' will appear to allow the class of analgesic to be identified.

Refer to the Australian Medicines Handbook or MIMS if you require help in identifying the class of analgesic prescribed.

### 4. Postoperative Pain Management

If data on postoperative pain management have been audited, select 'yes' this will allow you to answer questions 4.1 to 4.10

If data on postoperative pain management have not been audited, select 'no' and click on [Continue] to move to the next section.

#### Patient observations recorded during the audit period

Information	Data Collection	Summary Report	Submit Your Feedback
<b>4a. Postop. Pain Management I - Audit1, 00000002</b>			
Postoperative Pain Management audited?			
<input checked="" type="radio"/> yes <input type="radio"/> no			
<b>Patient observations recorded during the audit period</b>			
<input type="radio"/> * 4.1 Identify the audit period chosen <input type="radio"/> immediate post-op <input type="radio"/> post-PCA or epidural			
<input type="text"/> * 4.2 How many pain scores were actually documented during the audit period?			
<input type="text"/> * 4.3 How many sedation scores were documented during the audit period?			
<input type="radio"/> * 4.4 Were any episodes of nausea and/or vomiting documented during the audit period? <input type="radio"/> yes <input type="radio"/> no			

#### 4.2 How many pain scores were actually documented during the audit period?

Only a number can be entered into *APOP e-DUE*.

If no pain scores were documented during the audit period, enter '0'.

If  $\geq 1$  pain score were documented, enter the number and press [Tab], to open questions 4.2.1 and 4.2.2.

##### 4.2.1 What was the HIGHEST pain score documented during the audit period?

Only a number can be entered into *APOP e-DUE*. Enter a number between 0 – 10, where 0 is no pain and 10 is the worst pain possible.

If a descriptor is used, please convert to a number, using the following as a guide:

- mild = 2.5
- mild/moderate = 4
- moderate = 6
- moderate/severe = 7
- severe = 9

##### 4.2.2 How many were used to assess pain both at rest and movement in the same set of observations?

If a pain score was measured at rest 'R' may be recorded adjacent to the pain score.

If the pain score was measured on movement 'M' may be recorded adjacent to the pain score.

Count the number of pain scores where an 'R' and an 'M' have been documented in the same set of observations i.e. at the same time (e.g. both at 0800).

If no pain scores were recorded at the same time for rest and movement, enter '0' (i.e. zero).

##### 4.3 How many sedation scores were documented during the audit period?

Only a number can be entered into *APOP e-DUE*.

If no sedation scores were documented during the audit period, enter '0' (i.e. zero).

## Patient analgesia during the audit period

**Patient analgesia during audit period**

**i** \* 4.5 If a range of doses PRESCRIBED (e.g. 5-15mg), was the dose ADMINISTERED always documented?

yes

no

not applicable

**i** \* 4.6 If multiple routes PRESCRIBED (e.g. PO/IV), was chosen administration route always documented?

yes

no

not applicable

\* 4.7 Were any adverse drug reactions attributed to an analgesic(s) documented during this admission?

yes

no

\* 4.8 Was naloxone required during this admission for reversal of opioid-induced respiratory depression?

yes

no

### 4.5. If a range of doses PRESCRIBED, was the dose ADMINISTERED always documented?

Select 'Yes' if dose administered was specified **every** time the medication was administered, where a dose range was prescribed.

Select 'No' if dose administered was **NOT** specified **every** time the medication was administered, where a dose range was prescribed.

Select 'Not applicable' if no dose ranges were prescribed.

### 4.6. If multiple routes PRESCRIBED, was chosen administration route always documented?

If multiple routes of administration are included in a single medication order, e.g. paracetamol 1g q6h PO/IV, select 'Yes' if the route administered was specified **every** time the medication was administered.

Select 'No' if route administered was **NOT** specified **every** time the medication was administered, where a multiple routes were prescribed.

Select 'Not applicable' if no multiple routes were prescribed.

### 4.9 Analgesics prescribed and administered during the audit period

Information   Data Collection   Summary Report   Submit Your Feedback

**4b. Postop. Pain Management II - Audit1, 00000002**

**i** \* 4.9 Analgesics prescribed and administered during the audit period.

Analgesic (generic)	Route	Frequency	Administered	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="button" value="Add"/>

\* 4.10 Were antiemetics prescribed?

yes

no

*Analgesic:* Select a generic name for each analgesic prescribed from the drop down menu in APOP e-DUE. Where the list is lengthy, you can navigate quickly to the relevant section by typing the first couple of letters of the required option. (e.g. 'pa' to scroll to 'paracetamol')

If the drug does not appear on this list, a number of 'other' options have been provided to allow the 'other' drug to be linked to the relevant class for the Summary Report. To locate these, type 'other' to scroll to the relevant section of the list.

In the Analgesics list

- Other COX-2 inhibitor
- Other local anaesthetic
- Other NSAID
- Other NSAID + opioid fixed dose combination
- Other opioid
- Other

In the Antiemetics list:

- Other 5HT3 antagonist
- Other antihistamine
- Other dopamine antagonist
- Other

*Route:* Choose from the drop down menu in APOP e-DUE. See lists in Appendix 6 and 7 of the Guide to Data Collection for choices. If route was not specified on the medication chart, choose 'unknown'.

*Frequency:* Choose 'regular', 'PRN' or 'stat'. If frequency was not specified on the medication chart, choose 'unknown'.

*Administered:* Choose 'yes' or 'no'. If you do not know whether the medication was administered, choose 'unknown'.

You may [Tab] between fields in this table.

To enter further analgesics, click on [Add] at the end of the row to add further rows.

To correct an incorrectly-entered information, either edit the field by selecting another option to replace it, or click on [Remove] to remove the entire row.

#### 4.10 Were antiemetics prescribed?

If antiemetics were prescribed, select 'yes' this will allow you to answer questions 4.10.1.

If antiemetics were not prescribed, select 'no' and click on [Continue] to move to the next section.

4.10 Were antiemetics prescribed?

yes

no

\* 4.10.1 Antiemetics prescribed and administered during the audit period.

Antiemetic (generic)	Route	Frequency	Administered
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

The data entry process is the same as for 'Analgesics prescribed and administered'.

## 5. Discharge Management

If data on discharge management have been audited, select 'yes' this will allow you to answer questions 5.1 to 5.4.2.

If data on discharge management have not been audited, select 'no' and click on [Continue] to move to the next section.

Information	Data Collection	Summary Report	Submit Your Feedback
<b>5. Discharge Management - Audit1, 00000003</b>			
Discharge management audited?			
<input checked="" type="radio"/> yes			
<input type="radio"/> no			
5.1 Were analgesics prescribed at discharge?			
<input type="radio"/> yes			
<input checked="" type="radio"/> no			
* 5.2 Was an antiemetic(s) prescribed at discharge?			
<input type="radio"/> yes			
<input type="radio"/> no			
* 5.3 Was a laxative(s) prescribed at discharge?			
<input type="radio"/> yes			
<input type="radio"/> no			

### 5.1 Were analgesics prescribed at discharge?

If analgesics were prescribed, select 'yes' this will allow you to enter the details of the discharge analgesic prescription.

The data entry process is the same as for 'Analgesics prescribed and administered'.



If analgesics were not prescribed, select 'no'.

#### 5.1.1 Duration of therapy (days) if specified

Only a number can be entered into *APOP e-DUE*.


Only include the duration of therapy if it is specifically stated (e.g. for 5 days).

Leave blank if duration is not stated. Do not try to calculate based on the number of tablets dispensed in a pill box/container.

	5.4 Was any component of a management plan for analgesics documented?
	<input checked="" type="radio"/> yes
	<input type="radio"/> no
	* 5.4.1 Please indicate if the documented plan contained any of the following information for all analgesics:
	<input type="checkbox"/> Drug name
	<input type="checkbox"/> Dose and frequency
	<input type="checkbox"/> Duration of therapy
	<input type="checkbox"/> Clear instructions for pain management if one analgesic was prescribed
	<input type="checkbox"/> Clear instructions for pain management if a combination of analgesics (> or = 2) were prescribed
	<input type="checkbox"/> Clear instructions for maximum daily dose if more than one product containing paracetamol was prescribed
	<input type="checkbox"/> None of the above
	* 5.4.2 Indicate if communicated to:
	<input type="checkbox"/> Patient
	<input type="checkbox"/> GP
	<input type="checkbox"/> Neither patient nor GP
<input type="button" value="Back"/> <input type="button" value="Continue"/>	

### 5.4 Was any component of a management plan for analgesics documented?

If a component of a management plan for analgesics was documented, select 'yes' this will

allow you to enter the answers for questions 5.4.1 and 5.4.2. Click on  to view the explanatory note for a management plan or refer to the *Guide to Data Collection*.

If a component of a management plan for analgesics was not documented, select 'no' and click on [Continue] to move to the next section.

### 5.4.1 Please indicate if the documented plan contained any of the following information for all analgesics

Select multiple responses as applicable.

Selection of 'none of the above' will remove all other choices.

### 5.4.2 Indicate if communicated to:

If the plan was communicated only to the patient or GP, select 'patient' or 'GP' only.

If the plan was communicated to both the patient and GP, select both 'patient' and 'GP'.

If the plan was communicated to neither patient nor GP, select 'neither patient nor GP'.

Selection of 'neither patient nor GP' will remove all other choices.

## 6. Inpatient Interview

If the patient completed the inpatient interview, select 'yes' this will allow you to answer questions 6.1 to 6.4.

If the patient did not complete the inpatient interview, select 'no' and click on [Continue] to complete data collection.

Information	Data Collection	Summary Report	Submit Your Feedback
<b>6. Inpatient Interview - Audit1, 00000003</b>			
Did this patient complete the inpatient interview?			
<input checked="" type="radio"/> yes <input type="radio"/> no			
<b>Postoperative Pain Assessment</b>			
* 6.1 In the last 24 hours, what was your worst pain score following surgery?			
<input type="text"/>			
* 6.2 In the last 24 hours, if you have been given any medication to relieve the pain, do you feel overall that it has been:			
<input type="radio"/> very helpful <input type="radio"/> somewhat helpful <input type="radio"/> unhelpful <input type="radio"/> unsure <input type="radio"/> not applicable			
<b>Nausea and Vomiting</b>			
* 6.3 In the last 24 hours, have you experienced nausea and/or vomiting?			
<input type="radio"/> yes <input type="radio"/> no			
* 6.4 In the last 24 hours, if you have been given any medication to relieve this, do you feel overall that it has been:			
<input type="radio"/> very helpful <input type="radio"/> somewhat helpful <input type="radio"/> unhelpful <input type="radio"/> unsure <input type="radio"/> not applicable			
<input type="button" value="Back"/>		<input type="button" value="Continue"/>	

### 6.1 In the last 24 hours, what was your worst pain score following surgery?

Only a number can be entered into APOP e-DUE. Enter a number between 0 – 10, where 0 is 'no pain', and 10 is 'worst pain possible.'

## 'Summary Report' tab



It is important not to create a Summary Report until you have entered data into the data collection tool.


Information	Data Collection	Summary Report	Submit Your Feedback
Acute Postoperative Pain Audit Summary Report			
Open in New Window <span style="border: 1px solid red; border-radius: 50%; padding: 2px;">3</span>			
Inpatient Medical Record Review <span style="border: 1px solid red; border-radius: 50%; padding: 2px;">2</span>			
<b>1. Demographics</b>		<b>Audit1</b>	<b>Audit2</b>
females		1 / 3 (33%)	2 / 2 (100%)
median age (yrs)		2	4
<b>2. Preoperative Measures</b>		<b>Audit1</b>	<b>Audit2</b>
patients documented to have received education		0 / 1 (0%)	0 / 0 (0%)
Inpatient Interview			
<b>11. Participants completing the Inpatient Interview</b>		<b>Audit1</b>	<b>Audit2</b>
		0 / 3 (0%)	0 / 2 (0%)
<b>12. Patient postoperative pain assessment</b>		<b>Audit1</b>	<b>Audit2</b>
worst pain in the last 24 hours:			
- less than 4 (<4)		0 / 0 (0%)	0 / 0 (0%)

Features of this tab:

- ① 2 sections:
  - Inpatient Medical Record Review – which reports on the key measures relating to data entered in Sections 1-5 (although not all sections are included in the report).
  - Inpatient Interview - which reports on the measures relating to data entered in Section 6.
- ② 2 columns showing data collected in the respective audit period/s. In this case, Audit1 and Audit2.
  - A numerator – the figure shown on the left hand side of the slash
  - A denominator – the figure shown on the right hand side of the slash
  - The percentage (%) is shown in brackets - numerator divided by the denominator then multiply by 100
- ③ [Open in New Window] button – which provides the report in a MS Internet Explorer window from which you can:
  - View the report and access other sections of the tool at the same time (e.g. Data Collection) to check and/or modify data while still viewing the original report. The report will not update automatically if you change any data. You will need to select the 'Data Summary' tab again to see an effect of this change.
  - Print a hard copy of the report.
  - Save it electronically as a file.

## To print a copy of the summary report

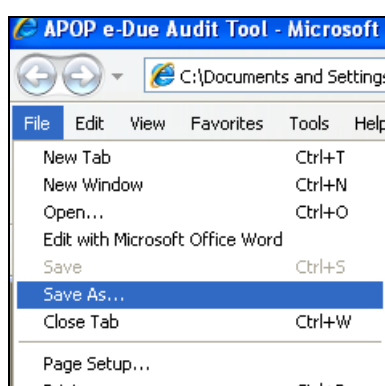
1. Select the 'Summary Report' tab.
2. Click on the [View in another window] button.

3. Click on the  icon.

The report will be sent to your default printer.

## To save an electronic copy of the report

1. Select the 'Summary Report' tab.
2. Click on the [View in another window] button.
3. Use the 'File' Menu and 'Save As' option to name the file and save an electronic (html) copy.



This could then be sent as an attachment to an email, if distribution is required. It is also useful if you wish to compare the results from one audit cycle (undertaking Audit1 and Audit2 are considered one audit cycle) with another.

## Explanation of measures

The explanations below explain how each measure has been calculated. In brackets, is the Data Collection question/s to which each relates.

### 1. Demographics

#### ***females***

= Female patients as a proportion of the total patients surveyed (Q1.1).

#### ***median age***

= Mid point (50th percentile) of all patients' ages in years (Q1.2).

### 2. Preoperative measures

#### ***Patient documented to have received education***

= Patients documented to have received education i.e. a 'yes' response, as a proportion of the total patients who were included in this section of the audit. (Q2.4)

### 3. Pain Assessment and Sedation Scores

#### ***patients with at least one pain score recorded***

= Patients with number of 'pain scores actually documented during the audit period' of greater than zero as a proportion of the total patients who were included in this section of the audit. (Q4.2)

***patients that had a pain score used to assess pain at rest and movement in the same set of observations***

= Number of pain scores used to assess pain at rest and movement as a proportion of the total number of pain scores recorded for all patients. (Q4.2 and Q4.2.2)

***patients with at least one sedation score recorded (prescribed at least one opioid)***

= Number of patients with at least one sedation score recorded as a proportion of the total number of patients included in this section who were prescribed an opioid or opioid-containing analgesic (e.g. paracetamol/NSAID + opioid fixed-dose combination products). (Q4.3 & 4.9)

#### **4. Postoperative analgesia**

***patients prescribed at least one opioid (incl. opioid + paracetamol)***

= Number of patients prescribed at least one opioid or opioid-containing analgesic as a proportion of the total number of patients prescribed any analgesic. (Q4.9)

***patients prescribed regular paracetamol***

= Number of patients prescribed paracetamol regularly (i.e. frequency of administration 'Reg') as a proportion of the total number of patients prescribed any analgesic. Note: Patients prescribed regular paracetamol fixed-dose combination with opioid are excluded from this analysis. (Q4.9)

***patients prescribed PRN analgesia only (excludes PCA/epidural)***

= Number of patients prescribed analgesics with frequency of administration recorded as 'PRN' for one or all analgesics as a proportion of the total number of patients prescribed any analgesic. Note: Patients prescribed a PCA or epidural are excluded from this analysis. (Q4.9)

#### **5. Postoperative analgesic prescriptions**

***list of analgesic prescriptions***

= Individual analgesic prescription numbers as a proportion of the total number of analgesic prescriptions. (Q4.9)

#### **6. Multimodal analgesia**

- ***opioid alone***
- ***paracetamol alone***
- ***NSAID/COX-2 inhibitor alone***
- ***opioid + paracetamol***
- ***opioid + NSAID/COX-2 inhibitor***
- ***paracetamol + NSAID/COX-2 inhibitor***
- ***NSAID/COX-2 inhibitor + opioid + paracetamol***
- ***other***

= number of patients prescribed the analgesic combinations (e.g. opioid alone, opioid + paracetamol etc) listed, as a proportion of the total number of patients prescribed at least one analgesic. (Q4.9)

#### **7. Medication safety and postoperative prescribing and administration**

***patients prescribed dose ranges that had the chosen administered dose specified (excl. N/A)***

= Number of patients prescribed dose ranges that had the administered dose specified as a proportion of the total number of patients who were included in this section of the audit prescribed dose ranges. Note: N/A responses excluded from this analysis. (Q4.5)

***patients prescribed multiple routes that had the chosen route of administration specified***

= Number of patients prescribed multiple routes that had the route of administration specified as a proportion of the total number of patients prescribed multiple routes. Note: N/A responses excluded from this analysis. (Q4.6)

**8. Nausea and vomiting**

***patients with documented episodes of nausea and/or vomiting***

= Number of patients with a documented episode of nausea and/or vomiting as a proportion of the total number of patients included in this section of the audit. (Q4.4)

***patients prescribed at least one antiemetic***

= Number of patients prescribed at least one antiemetic as a proportion of the total number of patients included in this section of the audit. (Q4.10)

**9. Discharge management**

***patients prescribed at least one analgesic on discharge***

= Number of patients prescribed at least one analgesic on discharge as a proportion of the total number of patients included in this section of the audit. (Q5.1)

***patients prescribed at least one new analgesic therapy at discharge, not administered in the last 24 hours of hospital stay***

= Number of patients prescribed at least one analgesic on discharge that was not administered in the last 24 hours of hospital stay as a proportion of the total number of patients prescribed at least one analgesic on discharge. (Q5.1)

**10. Analgesic management plan**

***documented pain management plans communicated to: GP***

= Total number of patients with a documented pain management plan communicated to their GP as a proportion of the total number of patients with a documented pain management plan. (Q5.4 & Q5.4.2)

***documented pain management plans communicated to: Patient***

= Total number of patients with a documented pain management plan communicated to the patient as a proportion of the total number of patients with a documented pain management plan. (Q5.4 & Q5.4.2)

***documented pain management plans communicated to: both GP and Patient***

= Total number of patients with a documented pain management plan communicated to both the patient and their GP as a proportion of the total number of patients with a documented pain management plan.

***documented pain management plans communicated to: neither GP nor Patient***

= Total number of patients with a documented pain management plan communicated to neither the patient nor their GP as a proportion of the total number of patients with a documented pain management plan.

***documented pain management plans with: drug name***

= Number of patients with documented pain management plans which included the drug name(s) as a proportion of the total number of patients with a documented pain management plan. (Q5.4 & Q5.4.1)

***documented pain management plans with: dose and frequency***

= Number of patients with documented pain management plans which included the dose and frequency as a proportion of the total number of patients with a documented pain management plan. (Q5.4 & Q5.4.1)

***documented pain management plans with: duration of therapy***

= Number of patients with documented pain management plans which included the duration of therapy as a proportion of the total number of patients with a documented pain management plan. (Q5.4 & Q5.4.1)

***documented pain management plans with: all of the above***

= Number of patients with documented pain management plans which included the drug name(s), dose and frequency and duration of therapy as a proportion of the total number of patients with a documented pain management plan. (Q5.4 & Q5.4.1)

**11. Participants completing the Inpatient Interview**

= Number of patients who completed the inpatient interview as a proportion of the total number of patients included in the audit. (Q6)

**12. Patient postoperative pain assessment**

***worst pain in the last 24 hours:***

- ***less than 4 (<4)***
- ***between 4 and 7 (>=4 and <=7)***
- ***greater than or equal to 8 (>=8)***

= Number of patients with a pain score within the reported range (i.e. <4, >=4 and <=7, or >=8) on a numerical rating scale or equivalent where 0 is 'no pain' and 10 is 'worst pain possible' as a proportion of the total number of patients included in the audit. (Q6.1)

***rating of pain relief from analgesics given (excl. N/A):***

- ***very helpful***
- ***somewhat helpful***
- ***unhelpful***
- ***unsure***

= Number of patients who gave a rating of pain relief provided by analgesics administered as a proportion of the total number of patients who received an analgesic (patients not administered an analgesic, i.e. N/A responses, not included). (Q6.2)

**13. Nausea and/or vomiting**

***patients experiencing nausea and/or vomiting***

= Number of patients who reported experiencing nausea and/or vomiting as a proportion of the number of patients who completed the inpatient interview. (Q6.3)

***rating of symptom relief from antiemetics given (excl. N/A):***


- ***very helpful***
- ***somewhat helpful***
- ***unhelpful***
- ***unsure***

= Number of patients who gave a rating of symptom relief provided by antiemetics administered as a proportion of the total number of patients who received an antiemetic (patients not administered an antiemetic, i.e. N/A responses, not included). (Q6.4)

## Exporting your raw data

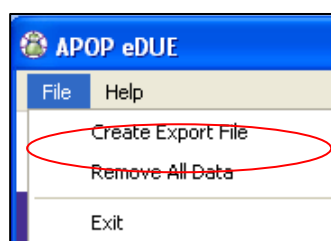
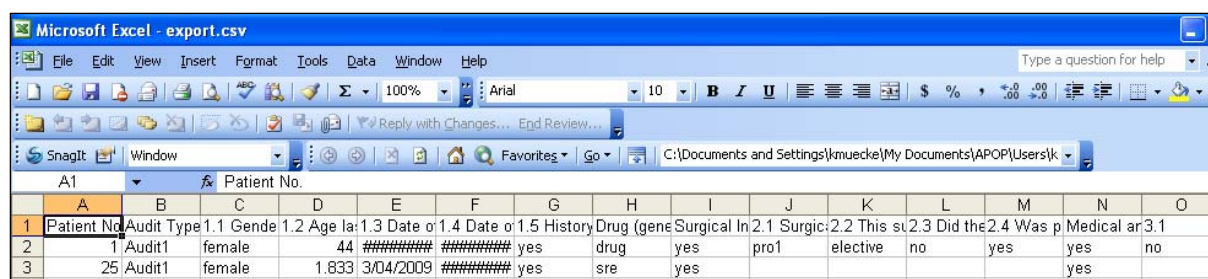
 **This should only be attempted once there are data to export, and you should be within the tool (i.e. not at the 'Welcome' screen) before attempting to export data to a file.**

You can create a file containing the raw data that has been entered into *APOP e-DUE*. This can then be saved as a MS Excel® file.

 **The limitations of MS Excel apply to the export file. That is, there can only be 256 columns of data. One column is used for each cell in a drug table (i.e. each row would use 4 columns) If you have a large number of rows in the drug tables, you may exceed the 256 column limit and not all can be displayed.**

### To export your raw data

1. Click on the 'File' menu item located in the top left hand corner of the screen and select 'Create Export File'.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
	Patient No.														
1	Patient No.	Audit Type	1.1 Gender	1.2 Age	1.3 Date of	1.4 Date of	1.5 History	Drug (gene	Surgical In	2.1 Surgic	2.2 This su	2.3 Did the	2.4 Was p	Medical ar	3.1
2	1	Audit1	female	44	#####	#####	yes	drug	yes	pro1	elective	no	yes	yes	no
3	25	Audit1	female	1.833	3/04/2009	#####	yes	sre	yes					yes	

The first row of the spreadsheet will be column headings – related to the questions in the Data Collection Screen – with subsequent rows being the data – a row for each patient, in order of patient number.

You may wish to manipulate the column widths and heading row to improve the view. This can be done using normal Excel functionality.

At this point you may wish to change the 'other' categories in drug or route, for further analysis if required.

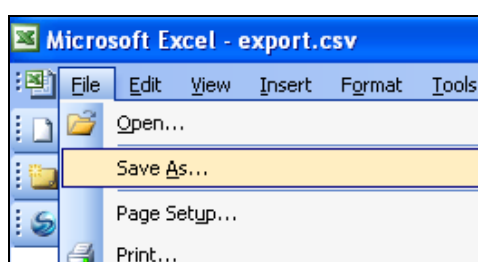
 **You can only have one export file open at a time because each file is given the name - export.csv - so you will be told that the file already exists.**

**If you want more to be able to manipulate data and compare export files on screen, you need to save an export file with a unique file name as soon as possible. Each will then be unique.**

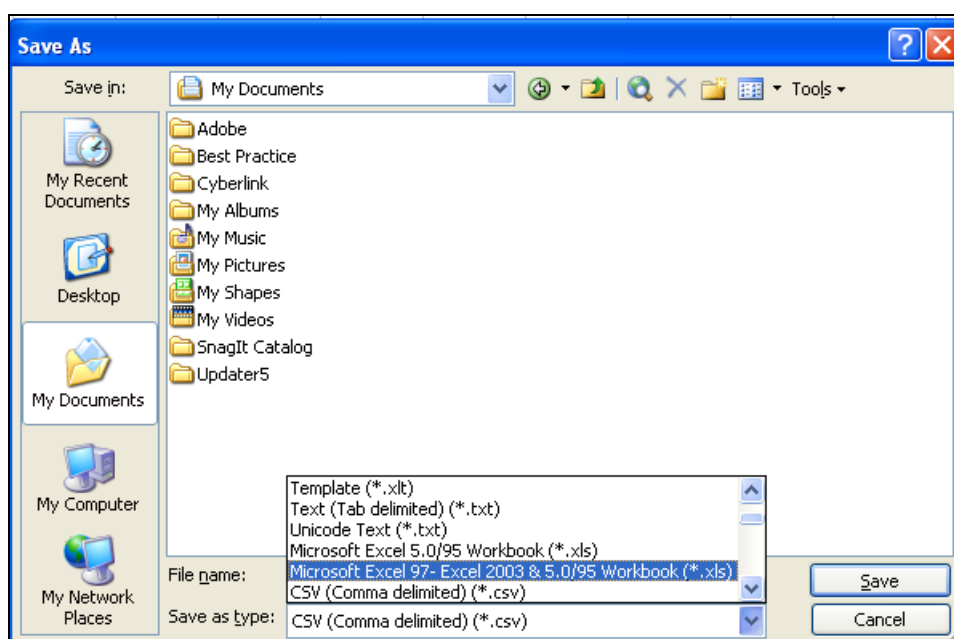
## To save the export file

The created file opens as a new window. Although the window says, Microsoft Excel, the format of this file is a csv<sup>1</sup> file. If you wish to save the file electronically, we recommend you change it to file type of xls.

1. Click on the 'File' menu and select the 'Save As' option



2. Navigate to the location where you propose to save the file – via the 'Save in' field.
3. Locate the 'Save as type' field on the 'Save As' window (bottom of window), and change from csv to xls (Microsoft Excel).
4. Name the file appropriately using the 'File name' field.



<sup>1</sup> Comma Separated Values (CSV) is a standard export format for many applications, most notably Microsoft Excel.

## 'Submit Your Feedback' tab

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Information	Data Collection	Summary Report	Submit Your Feedback
<b>Submit Your Feedback</b> ①			
<p>Thank you for using the e-DUE Audit Tool on the management of Acute Postoperative Pain (APOP e-DUE). The NPS encourages you to complete an evaluation to provide feedback for future programming. Your responses will remain confidential.</p> <p>We recommend completing data collection and summary reporting on at least 5 patients before attempting the feedback survey.</p> <p>▶ <a href="#">Complete the feedback survey</a> ②</p>			

Features of this tab:

- ① Introductory text explaining why you should provide feedback regarding the APOP e-DUE Audit Tool.
- ② Hyperlink to NPS APOP website to access and complete the Feedback Survey