



# Electronic skin cancer reporting tool

## User guide

**Menu** | NEW Case | Label Specimens Using Letters | Copy Final Report | Reset Copied Final Report | Please direct queries to Dr. Michael Eden | E-mail: m.eden@nhs.net | Case Number

**Specimen 1** | Add Specimen | VIEW FINAL REPORT

Skin | Basal Cell Carcinoma | Squamous Carcinoma | Malignant Melanoma | Other

**Clinical Data**  
Clinical Site: [Dropdown] | Clinical Site Unknown/Not Stated  
Specimen Type:  
 Excisional biopsy |  Curettings (Therapeutic)  
 Incisional (diagnostic) biopsy |  Curettings (Diagnostic)  
 Punch biopsy |  Curettings (Not specified)  
 Shave  
 Other (please specify)

**Macroscopic Description**  
Size of Specimen:  
Length [mm] | Breadth [mm] | Depth [mm]  
Maximum Macroscopic Diameter of Lesion:  
Maximum Diameter [mm] | Uncertain | No lesion seen

**Histological Data**  
Subtype:  
Low Risk:  
 Superficial |  Nodular  
High Risk:  
 Infiltrating/morphoic |  Micronodular |  Basosquamous  
Level of Invasion:  
 Dermis |  Extradermal  
If extradermal please specify tissue:  
 Fat |  Fascia |  Periosteum |  Muscle |  Cartilage |  (Para)tendon |  Perichondrium |  Bone  
If bone invasion present:  
Invasion of maxilla, mandible, orbit or temporal bone:  
 Yes (pT3) |  No |  Uncertain |  Cannot be assessed  
Invasion of axial or appendicular skeleton:  
 Yes (pT4) |  No |  Uncertain |  Cannot be assessed

**Margins**  
Peripheral [mm] | Deep [mm]  
 Involved |  Involved  
 Not involved <1 mm |  Not involved <1 mm  
 Not involved 1-5 mm |  Not involved 1-5 mm  
 Not involved >5 mm |  Not involved >5 mm  
 Uncertain |  Uncertain  
 Not applicable |  Not applicable

**Perineural Invasion**  
 Present |  Not identified |  Uncertain |  Cannot be assessed  
**PN Invasion of skull base**  
 Yes (pT4) |  No |  Uncertain |  Cannot be assessed

**Lymphovascular Invasion**  
 Present |  Not identified |  Uncertain |  Cannot be assessed

**Maximum Diameter Microscopic and/or microscopic**  
 <10 mm |  10-20 mm |  >20 mm |  Uncertain |  Cannot be assessed

**TNM Stage**  
T Stage [Dropdown] | N Stage [Dropdown] | M Stage [Dropdown]

Further Comments [Text Area]

**Specimen 1**  
Clinical Data/Macroscopic Description [Text Area]  
Microscopy Findings [Text Area]  
Conclusion [Text Area]  
STAGE [Text Area]  
SNOMED T [Dropdown] M [Dropdown]

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## **Introduction**

### **Overview**

This user guide provides a step-by-step guide for histopathologists on how to use the Electronic Skin Cancer Reporting Tool.

The reporting tool is a simple system for reporting basal cell carcinomas (BCCs), squamous cell carcinomas (SCCs), malignant melanomas (MMs) and other non-neoplastic skin entities. The tool includes all the data items in The Royal College of Pathologists' (RCPATH) cancer dataset and the national Cancer Outcomes and Services Dataset (COSD) for each tumour type.

A video overview is available at <http://youtube/HHcGLDg8KWg> or by searching for 'Skin cancer reporting tool' in YouTube.

### **How it works**

The tool operates within a Microsoft Word document and includes a digital signature to enable usage on any NHS computer and to prevent unauthorised tampering with the tool.

All dataset items are simply presented and there is provision for a maximum of ten specimens. The tool automatically generates a synoptic pathology report, SNOMED codes and pathological risk status, and assists with staging each case. Following completion of the form, the text summary of all the core data can be 'copied and pasted' into the micro section of your routine pathology report.

The case can be signed out as usual.

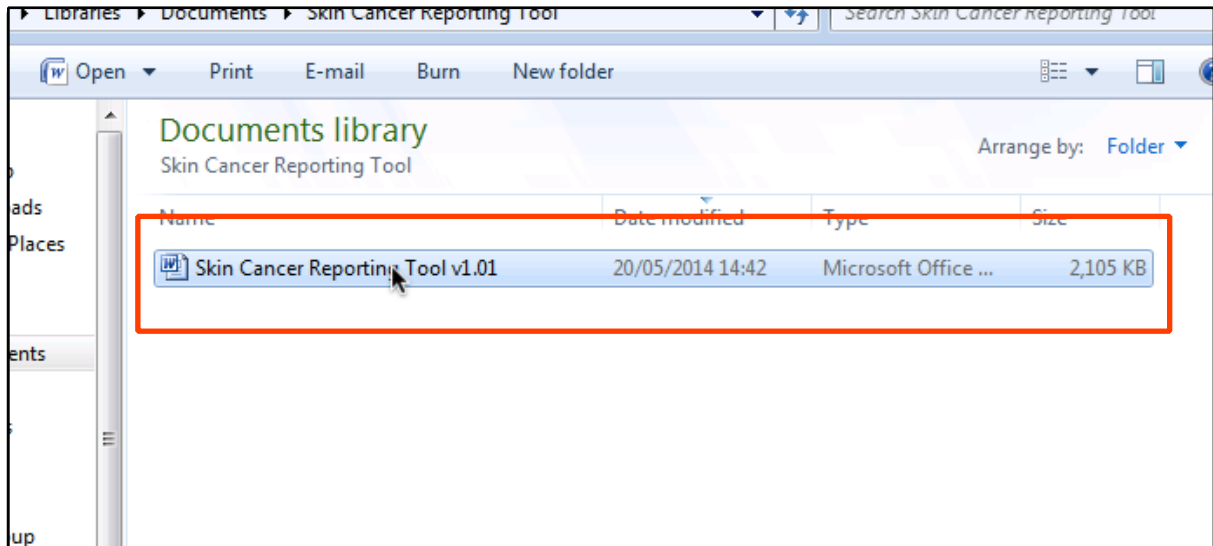
### **Benefits**

As well as making it easier to collect the RCPATH and COSD dataset items, the reporting tool also provides features to ensure data quality and minimise errors. The final report that is generated can be electronically read by systems at the National Cancer Registration Service in England and the relevant data items are automatically extracted by the cancer registry.

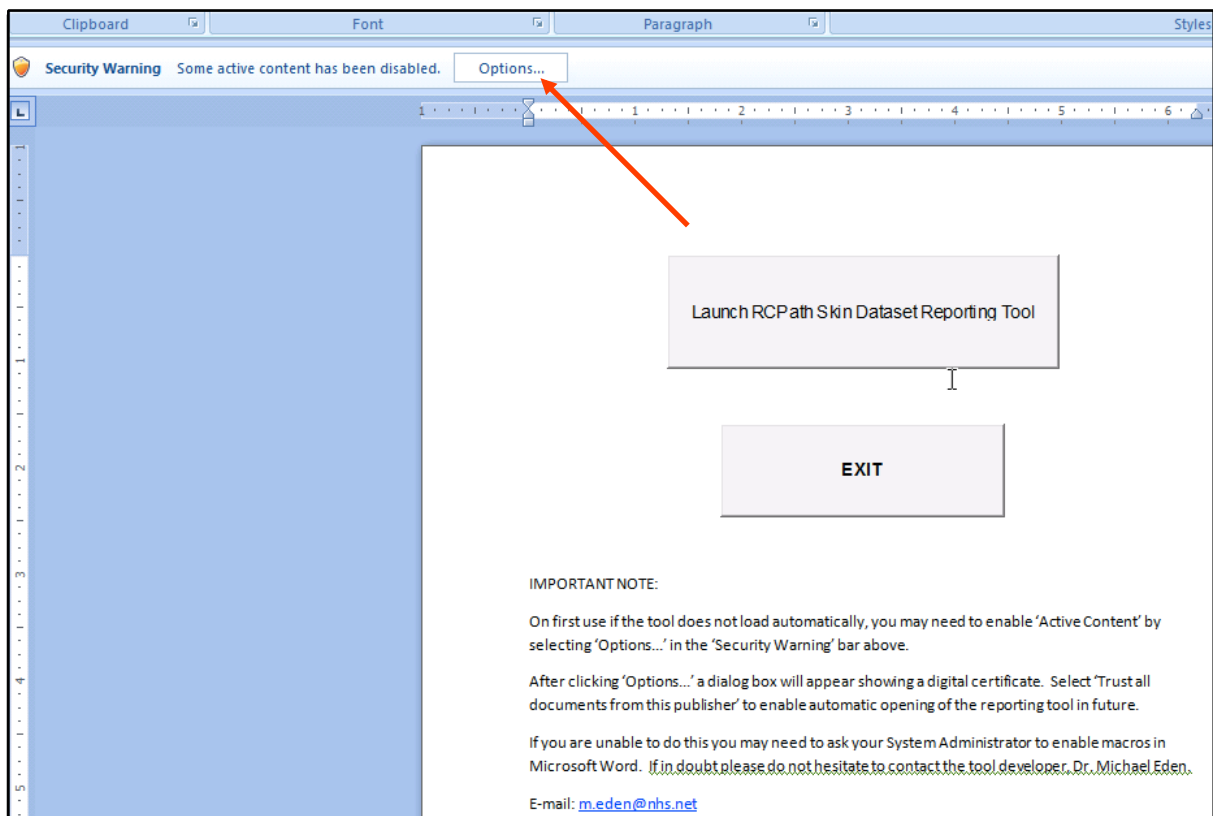
## Getting started

### Starting the tool

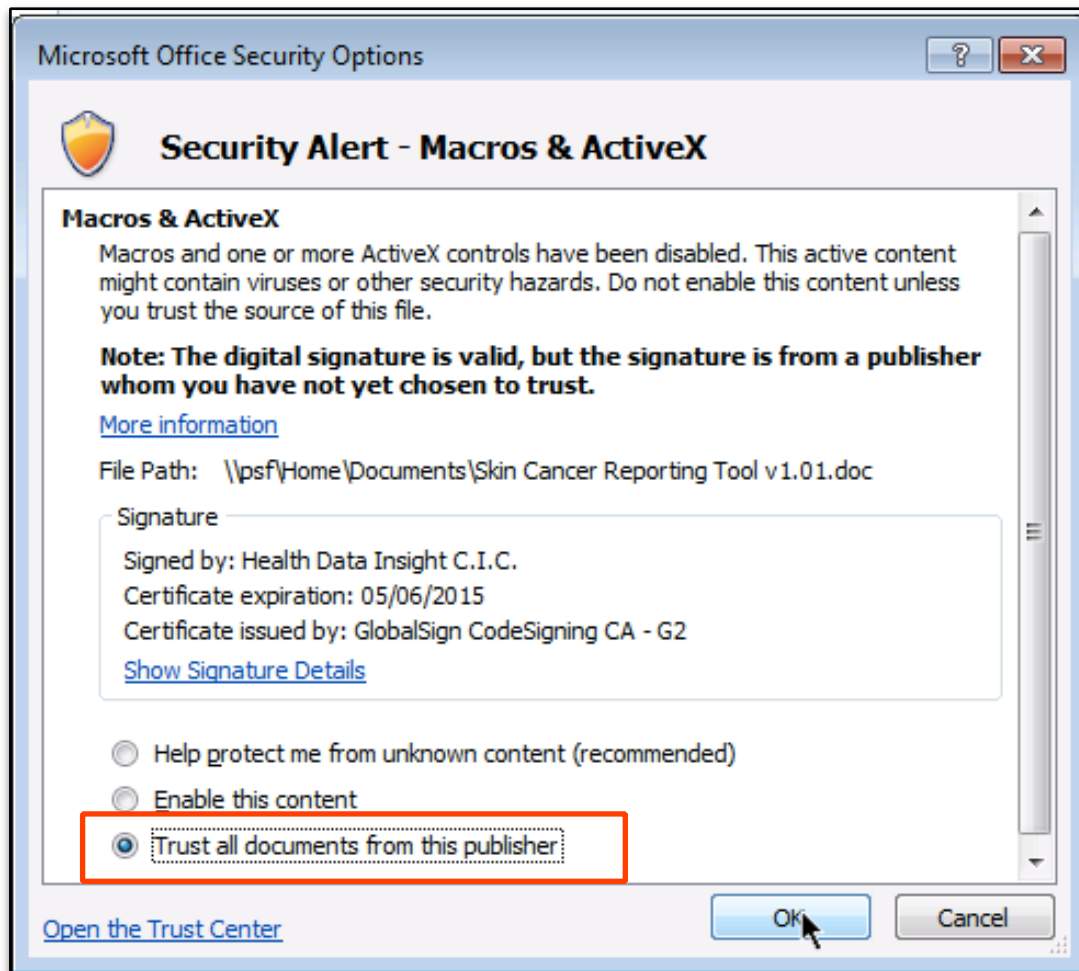
After you have downloaded the tool to your computer, double click on the downloaded file to open it in Microsoft Word.



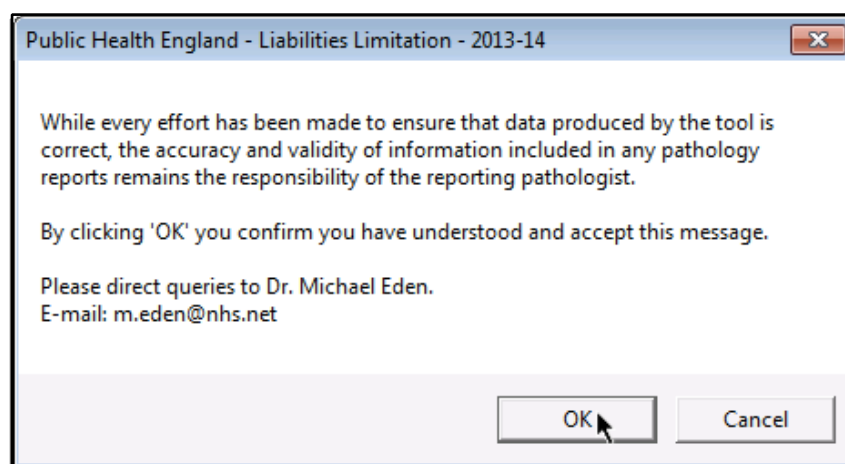
If, on first loading the tool, you are presented with a screen showing a 'Security warning' as seen in the screenshot below, click the [Options] button and read on. If not, please skip to the next section.



You will be presented with a 'Security Alert' pop-up window displaying an electronic certificate. Select 'Trust all documents from this publisher' and click [OK] to prevent this pop-up appearing when opening the reporting tool in future.



A 'Limited liabilities' notice will then be displayed. Click [OK] when ready to proceed. If the notice does not appear, click the [Launch RCPATH Skin Dataset Reporting Tool].



# Overview of the tool

An annotated overview of the reporting tool is shown below.

Start a new case (resets the entire form)

Toggle labelling specimens with letters

Copy final report for pasting into pathology system

Reset a copied final report to enable amendments to the report

Entry for laboratory/case

Case Number

VIEW FINAL REPORT

VIEW FINAL REPORT

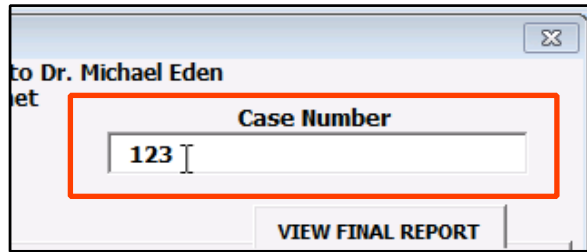
Add further specimens (up to a maximum of 10)

View final summary report

## Using the reporting tool

### Laboratory/case number

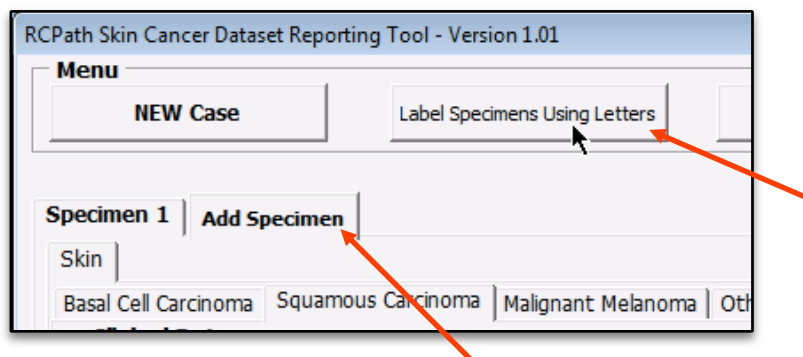
The laboratory/case number is a mandatory field, which is entered into the text box in the top-right corner of the reporting form.



A screenshot of a software window titled "to Dr. Michael Eden". Inside the window, there is a text input field labeled "Case Number" containing the number "123". The field is highlighted with a red rectangular border. Below the field is a button labeled "VIEW FINAL REPORT".

### Specimen number

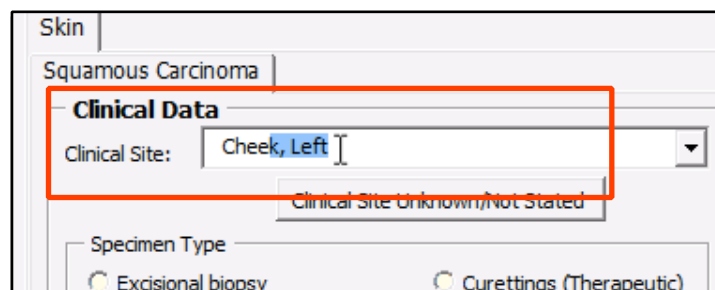
There are selectable tabs to select which specimen is being reported. Clicking the [Add specimen] button will add a specimen (up to a maximum of 10). Clicking the [Label Specimens Using Letters] toggle button toggles between labelling specimens using numbers or letters.



A screenshot of the "RCPATH Skin Cancer Dataset Reporting Tool - Version 1.01" interface. The "Menu" section contains buttons for "NEW Case" and "Label Specimens Using Letters". The "Specimen 1" section has an "Add Specimen" button. Below this are tabs for "Skin", "Basal Cell Carcinoma", "Squamous Carcinoma", "Malignant Melanoma", and "Oth". Red arrows point to the "Label Specimens Using Letters" button and the "Add Specimen" button.

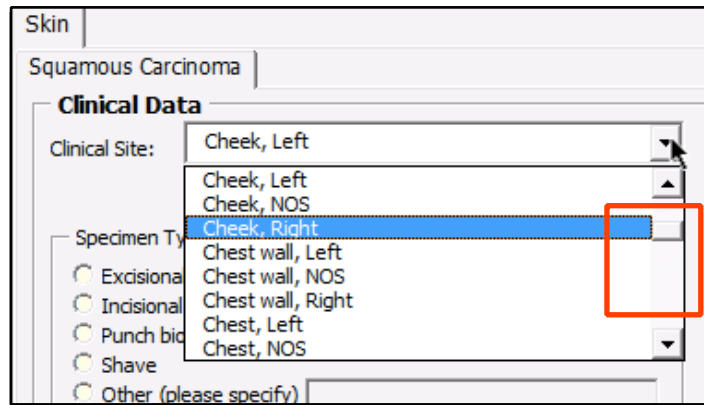
### Clinical site

The 'Clinical site' box will accept typed text and make an automatic suggestion from a pre-defined list of clinical sites based on what you type.



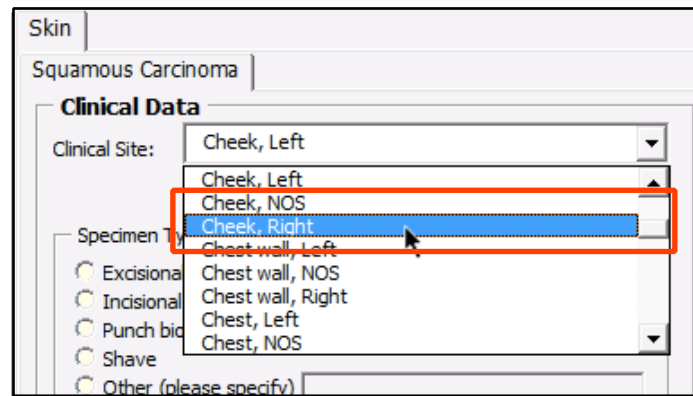
A screenshot of the "Clinical Data" section in the reporting tool. The "Clinical Site:" dropdown menu is open, showing "Cheek, Left" as the selected option. Below the dropdown is a button labeled "Clinical Site Unknown/Not Stated". The "Specimen Type" section below has radio buttons for "Excisional biopsy" and "Curettings (Therapeutic)".

Should you be unable to find the clinical site you are looking for, you can also display a drop-down list of clinical sites, listed in ascending alphabetic order.



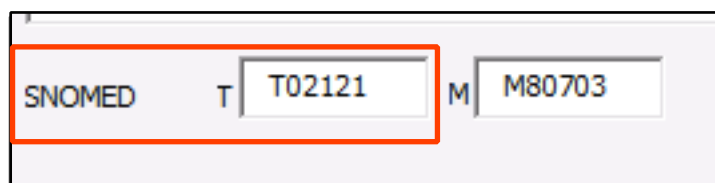
The screenshot shows a form titled "Skin" with a sub-section "Squamous Carcinoma". Under "Clinical Data", the "Clinical Site:" field has a dropdown menu open. The menu lists several options: "Cheek, Left", "Cheek, Left", "Cheek, NOS", "Cheek, Right", "Chest wall, Left", "Chest wall, NOS", "Chest wall, Right", "Chest, Left", and "Chest, NOS". The "Cheek, Right" option is highlighted in blue. A red box highlights the dropdown arrow and the list of options.

The clinical site can then be selected from the drop-down list.



This screenshot shows the same form as above, but now the "Clinical Site:" field displays "Cheek, Right". A red box highlights the dropdown menu, which is still open, showing the list of options. A mouse cursor is pointing at the "Cheek, Right" option.

Selecting a clinical site will automatically generate a topographical SNOMED code, shown in the bottom-right corner of the form.

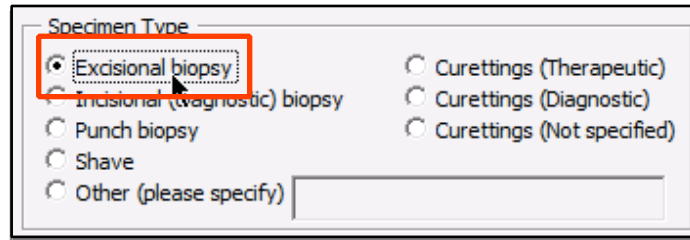


The screenshot shows the bottom-right corner of the form. It contains two input fields. The first field is labeled "SNOMED" and has a dropdown menu set to "T" with the value "T02121" displayed. The second field is labeled "M" and has the value "M80703" displayed. A red box highlights the "SNOMED" field and its dropdown menu.



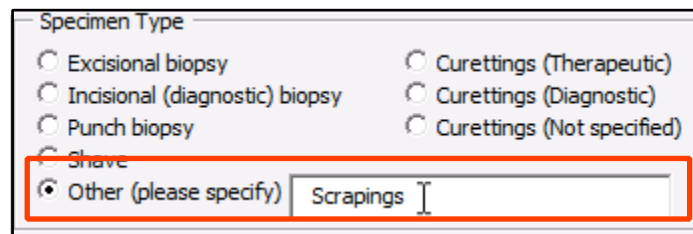
## Specimen type

Specimen type can be selected from the list of possible options available.



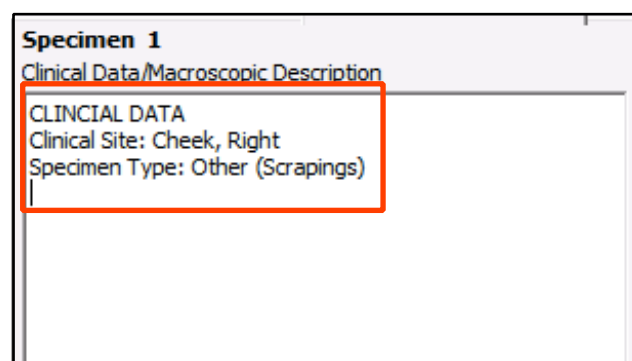
A screenshot of a form titled "Specimen Type". It contains several radio button options: "Excisional biopsy" (selected), "Incisional (diagnostic) biopsy", "Punch biopsy", "Shave", "Other (please specify)", "Curettings (Therapeutic)", "Curettings (Diagnostic)", and "Curettings (Not specified)". A red box highlights the "Excisional biopsy" option.

If selecting [Other] as the specimen type, the adjacent text box will become active and the specimen type can be specified by typing into this box.



A screenshot of the same "Specimen Type" form. The "Other (please specify)" radio button is now selected, and the text box next to it contains the word "Scrapings". A red box highlights the "Other (please specify)" option and its text box.

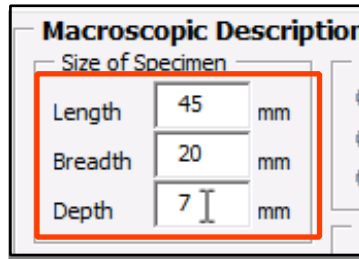
The report will automatically update to reflect the changes made in the form.



A screenshot of a report titled "Specimen 1". Under the heading "Clinical Data/Macroscopic Description", there is a text box containing the following information: "CLINICAL DATA", "Clinical Site: Cheek, Right", and "Specimen Type: Other (Scrapings)". A red box highlights this text box.

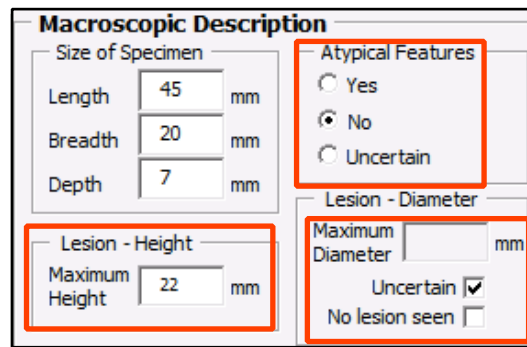
## Macroscopic description

The size of the specimen (length, breadth, depth) can be entered in the relevant text boxes.



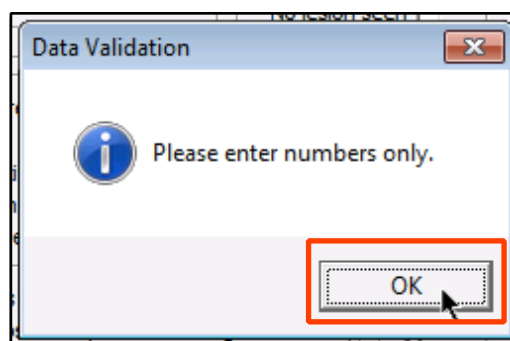
The screenshot shows a dialog box titled "Macroscopic Description". Under the "Size of Specimen" section, there are three rows of input fields: "Length" with the value "45", "Breadth" with the value "20", and "Depth" with the value "7". Each input field is followed by a "mm" unit label. A red rectangular box highlights these three rows.

Items relating to a potential lesion can be entered in the relevant text boxes and tick boxes.



The screenshot shows the "Macroscopic Description" dialog box with additional fields. The "Size of Specimen" section is on the left. To its right is the "Atypical Features" section with three radio buttons: "Yes", "No" (which is selected), and "Uncertain". Below these is the "Lesion - Diameter" section with a "Maximum Diameter" input field (value is empty) followed by "mm", and two checkboxes: "Uncertain" (checked) and "No lesion seen" (unchecked). To the left of the "Lesion - Diameter" section is the "Lesion - Height" section with a "Maximum Height" input field (value is "22") followed by "mm". Red rectangular boxes highlight the "Atypical Features" section, the "Lesion - Height" section, and the "Lesion - Diameter" section.

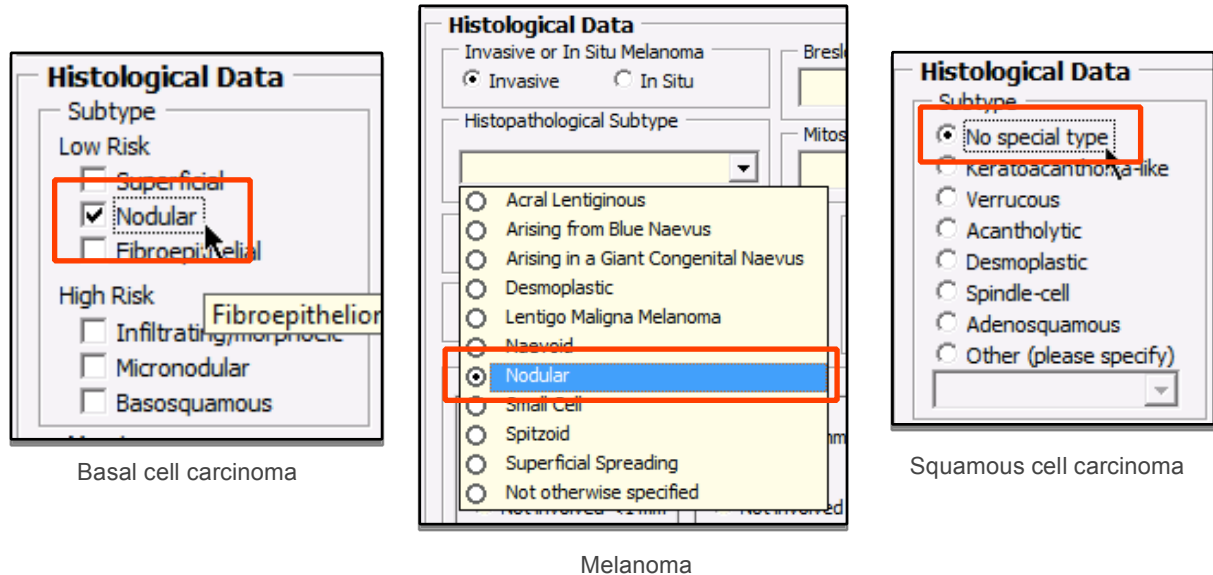
If non-numerical characters (i.e. any characters that are not numbers) are entered into the text boxes for macroscopic descriptions, a pop-up message is displayed alerting and preventing the user from entering invalid information. The pop-up box can be dismissed by clicking the [OK] button.



## Microscopic description

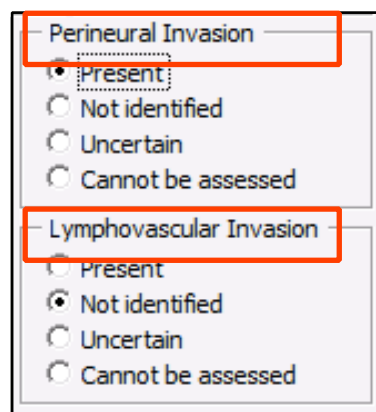
### Histological subtype

Histological subtype(s) can be selected using checkboxes (BCC), or a combination of radio buttons and drop-down boxes (SCC, melanoma).



### Perineural and lymphovascular invasion

The status of perineural and lymphovascular invasion can be selected using the relevant radio buttons. Please note that for basal cell carcinoma, lymphovascular invasion is only selectable when the tumour subtype is 'Basosquamous'.



## Peripheral and deep margins

The status of the peripheral and deep margins can be selected using the radio buttons in the relevant sections.

The screenshot shows a form titled 'Invasive Component' with two columns: 'Peripheral Margins' and 'Deep Margins'. Each column has a text input field followed by 'mm'. Below each input field are five radio button options: 'Involved', 'Not involved <1 mm', 'Not involved ≥1 mm', 'Uncertain', and 'Not applicable'. In the 'Peripheral Margins' column, the 'Not involved <1 mm' option is selected, and the 'Not involved ≥1 mm' option is highlighted with a red box. In the 'Deep Margins' column, the 'Involved' option is selected, and the 'Not involved <1 mm' option is highlighted with a red box.

Should you need to record exact measurements for the margins, click the text box in the relevant section and enter a value. This can be done even if you have already selected a category option, as in the screenshot above.

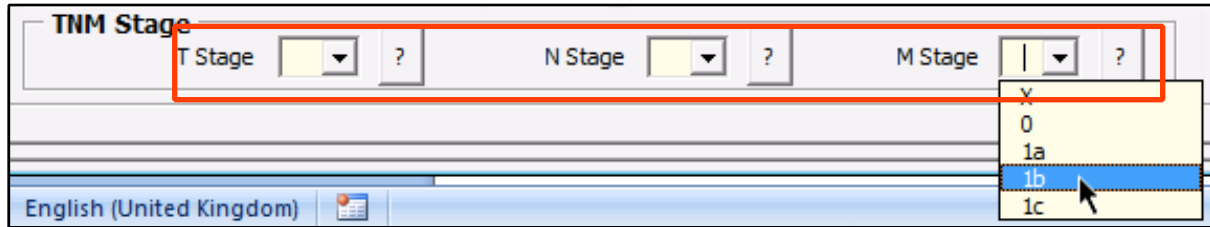
This screenshot shows the same 'Invasive Component' form. In the 'Peripheral Margins' column, the text input field contains the number '35' and is highlighted with a red box. In the 'Deep Margins' column, the text input field contains the number '0' and is also highlighted with a red box. The radio button options remain the same as in the previous screenshot.

Typing in a value automatically selects the correct category based on the value entered. The exact measurement is automatically added to the final report, in addition to the category.

The screenshot shows a 'Microscopy Findings' report. Under the heading 'HISTOLOGICAL DATA', it lists 'Invasion Present: Yes'. Below this, it lists 'Perineural/Neurotropic invasion: Present', 'Lymphovascular invasion: Not identified', 'Peripheral Margins = 35 mm (Clear ≥1mm)', and 'Deep Margins = 0 mm (Involved)'. The last two lines are highlighted with a red box.

## Staging

The T, N and M components of stage can be selected using the relevant drop-down boxes. The values available for selection are limited to those that are valid based on tumour type and clinical site.



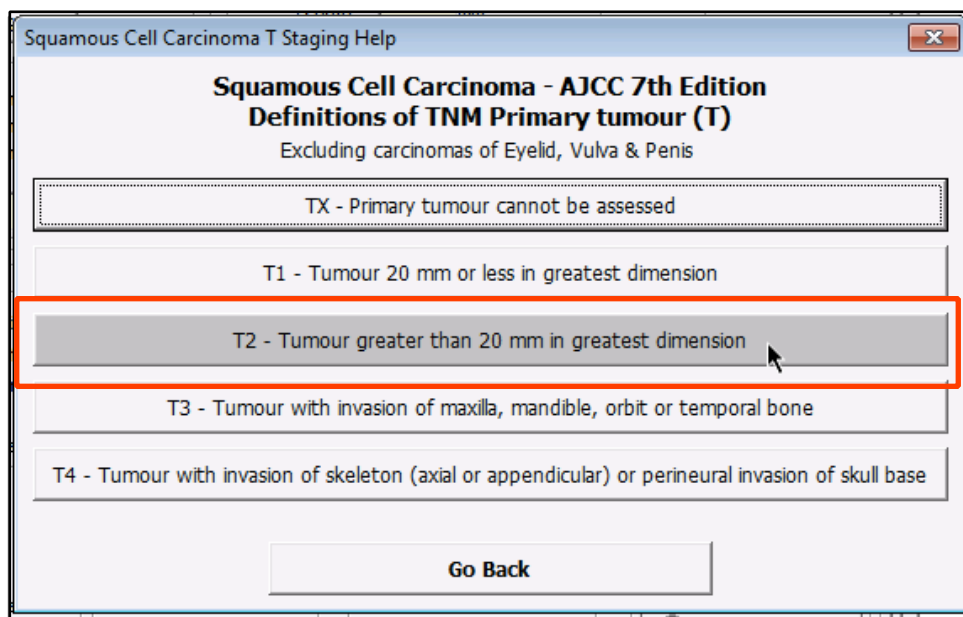
The screenshot shows the 'TNM Stage' section of a form. It includes three dropdown menus for 'T Stage', 'N Stage', and 'M Stage', each with a corresponding help button (a square containing a question mark). The 'T Stage' dropdown is currently open, displaying a list of options: 'x', '0', '1a', '1b', and '1c'. The option '1b' is highlighted in blue. A red rectangular box is drawn around the 'T Stage' dropdown and its help button. Below the form, the language is set to 'English (United Kingdom)'.

If you are unsure of what T, N or M values to assign to the case, you can click on the relevant [?] buttons next to each drop-down box.



This screenshot shows the same 'TNM Stage' section as the previous one, but with the help button (a square containing a question mark) next to the 'T Stage' dropdown highlighted by a red rectangular box. A mouse cursor is pointing at this button.

Clicking the [?] button will display a pop-up window showing the definitions of each staging value. Based on the values already entered in the form, the reporting tool may suggest a staging value by highlighting that option. The staging value can be selected by clicking on it.



The screenshot shows a pop-up window titled 'Squamous Cell Carcinoma T Staging Help'. The window contains the following text:

**Squamous Cell Carcinoma - AJCC 7th Edition**  
**Definitions of TNM Primary tumour (T)**  
Excluding carcinomas of Eyelid, Vulva & Penis

TX - Primary tumour cannot be assessed

T1 - Tumour 20 mm or less in greatest dimension

**T2 - Tumour greater than 20 mm in greatest dimension**

T3 - Tumour with invasion of maxilla, mandible, orbit or temporal bone

T4 - Tumour with invasion of skeleton (axial or appendicular) or perineural invasion of skull base

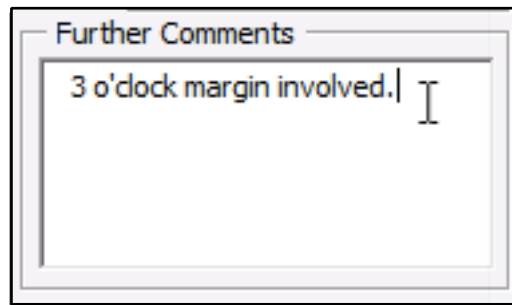
At the bottom of the window is a button labeled 'Go Back'. A red rectangular box highlights the 'T2 - Tumour greater than 20 mm in greatest dimension' option, and a mouse cursor is pointing at it.

### Other dataset items

The remaining dataset items are self-explanatory and can be filled out in a similar fashion to the dataset items discussed so far. The reporting tool will automatically disable/enable certain dataset items based on certain criteria relating to the tumour (e.g. margins will be disabled if the specimen type is 'Curettings'). This functionality is entirely normal.

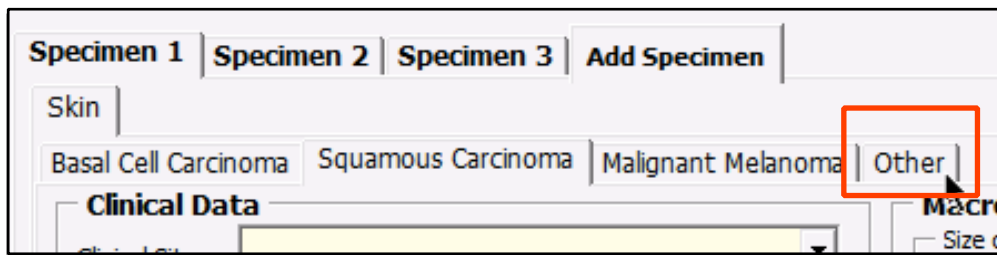
### Further comments

Further comments can be entered by typing in the 'Further Comments' text box.



### Non-neoplastic skin entities

To cater for specimens where the diagnosis is not malignant/neoplastic, click on the [Other] tab near the top of the form.



This will present you with a form allowing entry of clinical data, microscopy findings and a conclusion. These items are automatically added in the correct location on the final summary report.

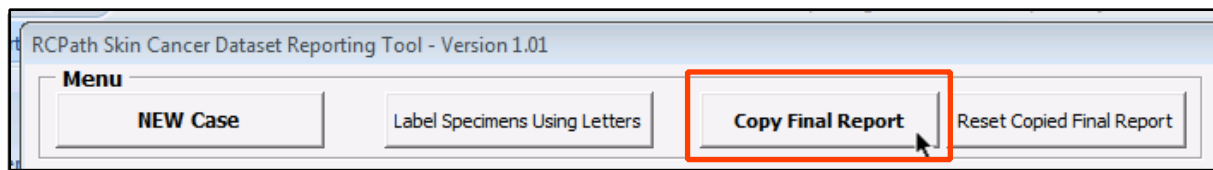
## Producing the final report

### NOTE:

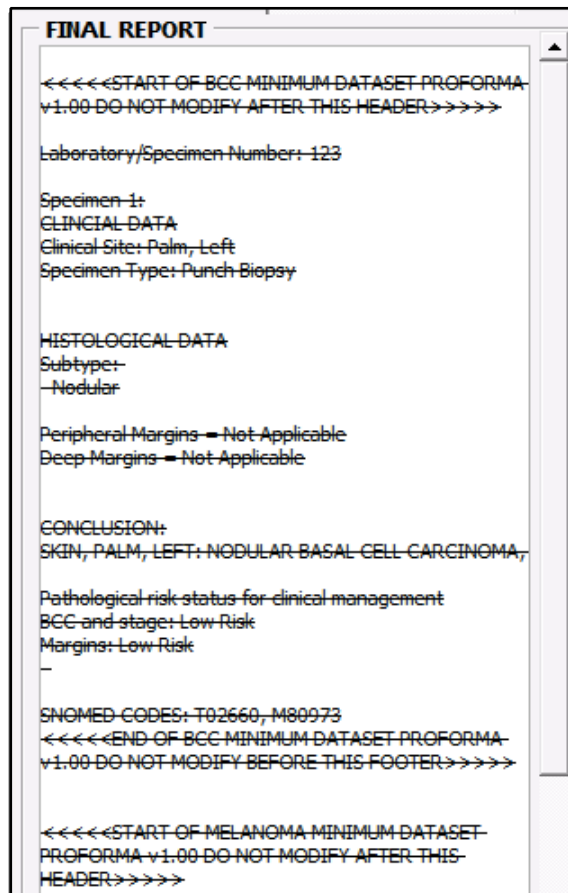
It is important to **NOT MODIFY** the report after it has been pasted into your pathology system

## Copying the report

When you are happy with the final report, click the [Copy Final Report] button at the top of the form.



This will cause the final report/summary to be formatted with a strikethrough to indicate that the text has been copied.

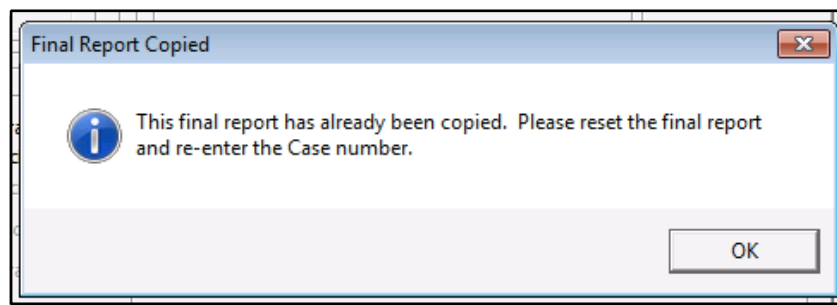


## Pasting the report

The final report/summary can now be pasted into the microscopy section of the pathology reporting system used in your laboratory. This may involve clicking the right-mouse button to bring up a menu from which you can select Paste. Keyboard shortcuts may include pressing the following keys simultaneously; [Ctrl]+[V] or [Alt]+[V]. If in doubt, please contact your system administrator.

## Making changes to the report after copying

Note that changing the values in the reporting tool and pressing the [Copy Final Report Button] again after the report has already been copied will generate the following message.

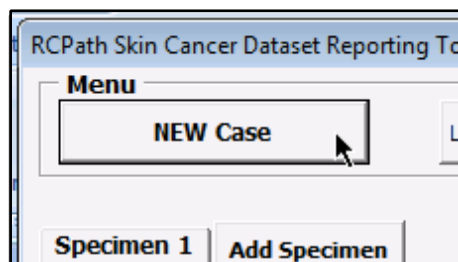


After making the necessary modifications to the values in the reporting tool, press the [Reset Copied Final Report] button. This will remove the strikethrough from the final report text and clear the laboratory/case number in the top-right corner.

This feature prevents accidental copying of a final report to a case in your pathology reporting system with a different laboratory number, by asking you to re-confirm the laboratory number of the case, before the final report can be successfully copied.

## Starting a new case

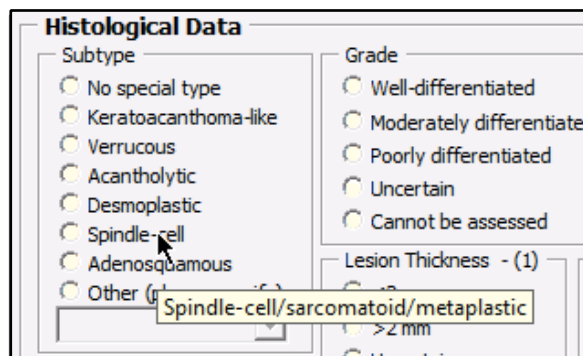
When you have finished pasting the final report into your system and wish to start a new case, click the [New Case] button in the top-left corner.



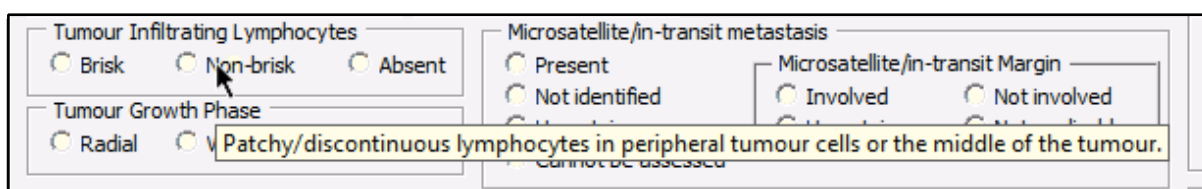


## Tool tips

Given the enormous scope of the RCPATH datasets, tool tips are available for certain data items that provide useful information or definitions for that item. These are designed to improve workflow and reduce ambiguity. These can be accessed by hovering the mouse cursor over the relevant data item.



The screenshot shows a form titled "Histological Data" with two columns of radio button options. The left column is labeled "Subtype" and includes options: "No special type", "Keratoacanthoma-like", "Verrucous", "Acantholytic", "Desmoplastic", "Spindle-cell", "Adenosquamous", and "Other (if)". The right column is labeled "Grade" and includes options: "Well-differentiated", "Moderately differentiated", "Poorly differentiated", "Uncertain", and "Cannot be assessed". A tooltip is visible over the "Spindle-cell" option, displaying the text "Spindle-cell/sarcomatoid/metaplastic".



The screenshot shows a form with several sections. The "Tumour Infiltrating Lymphocytes" section has options: "Brisk", "Non-brisk", and "Absent". The "Tumour Growth Phase" section has options: "Radial" and "Patchy/discontinuous lymphocytes in peripheral tumour cells or the middle of the tumour.". The "Microsatellite/in-transit metastasis" section has options: "Present", "Not identified", and "Microsatellite/in-transit Margin" (with sub-options "Involved" and "Not involved"). A tooltip is visible over the "Patchy/discontinuous lymphocytes in peripheral tumour cells or the middle of the tumour." option, displaying the text "Patchy/discontinuous lymphocytes in peripheral tumour cells or the middle of the tumour.".

## Acknowledgements

Dr Brian Rous is acknowledged for his contribution to testing the reporting tool in the initial phases and kindly providing access to a histopathology reporting tool he had developed, which formed the basis for the current skin cancer reporting tool.

Dr Jem Rashbass is acknowledged for his vision and guidance with regards to implementation of the reporting tool and his collaborative efforts with relevant stakeholders.

Dr David Slater is acknowledged for providing guidance and clarification with regard to the datasets and kindly providing early access to the datasets during the consultation period.

Recognition is also made of the valued contribution of a number of consultant histopathologists across England who kindly volunteered their time and feedback during the pilot-phase testing of the reporting tool.

## Support

For any issues regarding functionality of the reporting tool, please email the reporting tool author, Dr Michael Eden, on [m.eden@nhs.net](mailto:m.eden@nhs.net)

For dataset-specific enquiries, please contact The Royal College of Pathologists' Clinical Effectiveness Department on [audit@rcpath.org](mailto:audit@rcpath.org) or 020 7451 6737.