

Surgical site infection surveillance protocol

Edition 7.1

(Updated May 2019)

**SSIRS User
Manual.**

APPENDIX 3

SURGICAL SITE INFECTION REPORTING SYSTEM (SSIRS)

Please note that this document is updated regularly as SSIRS is a live system with constant changes and improvements applied to it. The updated version can be accessed from the SSIRS or HPS website or by request from NSS.HPSSSHAIP@nhs.net

SURGICAL SITE INFECTION REPORTING SYSTEM (SSIRS)

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1 REGISTERING FOR NEW ACCOUNT, LOGIN AND PASSWORD RESET

1.1 Register for a new account

To register for a new SSIRS user account go to <https://ssirs.scot.nhs.uk/> and click on the “Sign up for a new user account” link. You will be taken to the register for a new account page.

Register for a new user account screen

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New User Account

Enter your name, email address and a password for your new account.

First name:

Last name:

Password:

Confirm password:

Email:

Confirm Email:

Choose the name of the NHS board or organisation with which you are affiliated:

Select one

Other:



Type the numbers you see above into the text box

[Click here if you cannot read the numbers inside the image](#)

When you register you must provide your first name, last name, email address, a password and your affiliation. Affiliation is required to let the site administrator know which hospital datasets you require access to. If you do not have an affiliation or you are based at a non-NHS healthcare facility or hospital, select the "Other" option and type in the name of your healthcare facility or hospital.

You must also type in the number displayed at the bottom of the screen. This is a security precaution. If the image is too distorted to be readable, click the "Click here if you cannot read the numbers inside the image" link and the image will be reloaded.

When you are finished click the "Next" button.

On the next page your details are displayed back to you. If they are all correct click "Finish". Please be sure to check that your email address is correct.

Once you have registered, an automatically generated email is sent to your email address. This contains your username and password, pending authorisation. It is recommended that you keep a note of this for your records.

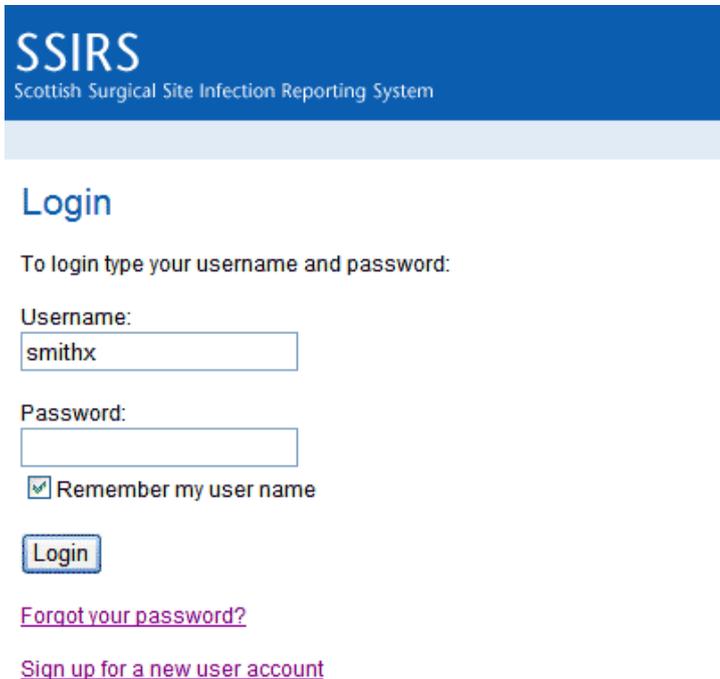
At the same time, the SSHAIP team will also receive an email for the purposes of authorisation. The SSHAIP team will contact the named surveillance co-ordinator for your affiliated area to confirm your details and access requirements. Once your request has been approved, the SSHAIP team will set your access level and you will receive a second email to notify that your user account will be ready to use.

Please note that the SSHAIP team will carry out an annual check of active accounts. If no confirmation is received within the required time period that your account is being used it will then be deactivated.

1.2 Login

Once you have received a confirmation email that the site administrator has approved your user account, you can login and start using your account.

Login screen



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Login

To login type your username and password:

Username:

Password:

Remember my user name

[Forgot your password?](#)

[Sign up for a new user account](#)

To login, simply type your username and password and click the “Login” button. If you want your username to be remembered, check the “Remember my username” checkbox. You will always have to type in your password.

If you type anything incorrectly then you will not be able to login. A red error message will be shown with details of this.

If you cannot remember your password, you can reset it by clicking on the “Forgot your password?” link or contact the SSHAIP team.

1.3 Password security

User passwords must be changed every 90 days

- Your password cannot be used for more than 90 days. If you do not change your password yourself in this time, the system will force you to change your password the first time you log in after the 90 days window has passed.

User passwords cannot be reused in a 12 month period

- When changing your password, you cannot reuse the same password within a 12 month period.

User passwords must meet certain character requirements:

- Must contain at least 1 character from 3 of the following 4 character groups:
 - Uppercase letters
 - Lowercase letters
 - Numbers

- The following special characters "!£\$%^&*()_@#?

- Your password must be least 8 characters long
- Your password must not contain the terms “SSIRS” or “password”

The following are examples of passwords that are not acceptable:

- “test” because it less than 8 characters long and contains only lowercase letters
- “ssirspassword” because it contains the term SSIRS or password
- “goal8012” because it contains only lowercase letters and numbers

The following are examples of passwords that are acceptable:

- @r0l@nD0141300
- #Jup!t£r#
- 1991_s@g8T#ryU

User accounts are locked for 30 minutes after 3 incorrect login attempts.

If you enter the wrong password 3 times in a row when logging in, your account will be automatically locked for 30 minutes and you will be unable to login during this time.

If you cannot wait 30 minutes then you must contact the SSHAIP team to reset your password for you and unlock your account.

1.4 Reset password

To reset your password, click on the “Forgot your password?” link of the login screen. You will be taken to the reset password screen.

Reset password screen

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Reset Password

To reset your password, type your username and the email address you use for your user account.

Type your username:

Type your email address:

You will need to type in the username you were sent and the email address you provided when you initially registered for your user account. Type these in and click the “Finish” button.

If you type anything incorrectly an error message will be displayed with details of the error. If you cannot remember your username you will have to contact the site administrator directly.

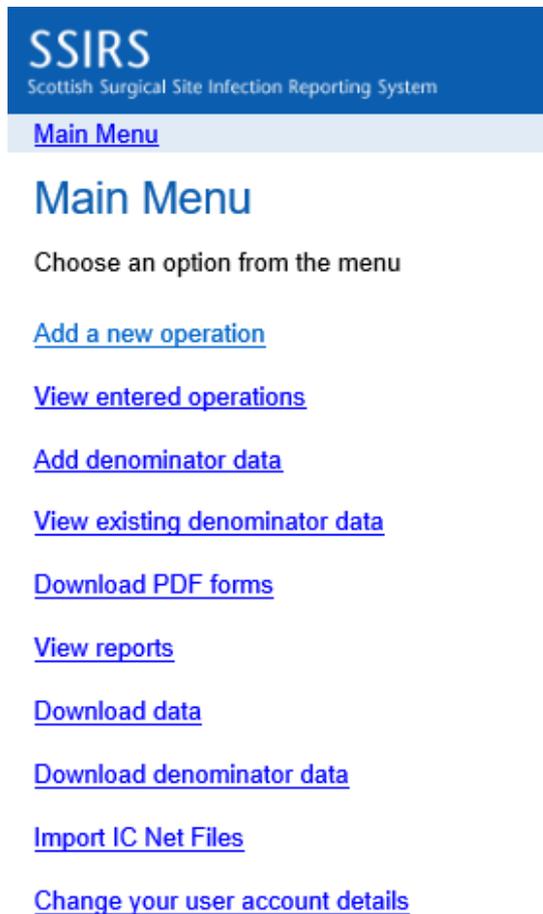
If you successfully provided your username and email address, your new password will be sent to your email account. When you receive this email, login with the new password and change your password to something that is more memorable.

2 THE MAIN MENU

Once you have logged in, you are taken to the main menu screen. This is the central control point of the website. From here you can access all the main functions of the website within a few clicks.

The options available to you from the main menu are listed in the figure below.

The main menu screen



The options displayed are:

Add a new operation – click this if you want to enter data from a surveillance form. [See section 3 for details.](#)

View entered operations – click this if you want to complete data entry on a surveillance form you began entering previously or if you want to browse or find surveillance records. [See section 4 for details.](#)

Add denominator data – click this if you carry out light surveillance for any procedure category and want to enter the total number of operations per month. [See section 5 for details.](#)

View existing denominator data – click this if you would like to browse through the denominator data entered for previous months. [See section 6 for details](#)

Download PDF forms – click this if you want to download surveillance forms to view, save or print. [See section 7 for details.](#)

View reports – click this to be taken to the reports screen. [See section 8 for details.](#)

Download data – this will take you to the download data screen where you can download surveillance data in CSV file format. [See section 9 for details.](#)

Download denominator data – click this if you would like to download all denominator data entries in a CSV file format. [See section 10 for details.](#)

Import IC Net Files – click this if you use ICNet and would like to import completed data collection form (DCF) records exported as a .txt file. [See section 11 for details.](#)

Change your user account details – click this if you want to change your registered email address or password. [See section 12 for details.](#)

You can return to the main menu screen at any time. Simply click the “Main Menu” link in the SSIRS page header.

The main menu link



This appears on all screens in the website provided you are logged in.

3 ENTERING SURVEILLANCE DATA

Entering surveillance data is an easy four-step process, which can be summarised as:

- Choose a surveillance form
- Entering the surveillance data using the form pages
- Quality checking and form level validation
- Completing the record

3.1 Choose a surveillance form

To begin a new surveillance record (or operation), click on the “Add a new operation” link on the main menu screen. You will be taken to the form selection screen.

The form selection screen

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[Main Menu](#)

New Operation

Choose a data entry form:

- Uploaded Data Form For CABG Surgery
- Uploaded Data Form For Abdominal Hysterectomy
- Uploaded Data Form For Breast Surgery
- Uploaded Data Form For Caesarean Section
- Uploaded Data Form For Cardiac Surgery
- Uploaded Data Form For Hip Arthroplasty**
- Uploaded Data Form For Cranial Surgery
- Uploaded Data Form For Knee Arthroplasty
- Uploaded Data Form For Major Vascular Surgery
- Uploaded Data Form For Open Reduction Of Long Bone
- NHS Tayside Major Vascular Surgery (39458)
- NHS Tayside Ninewells Abdominal Hysterectomy (41841)
- NHS Tayside Breast Surgery (5005)
- NHS Tayside Orthopaedic (25719)
- NHS Tayside Tayside Caesarean Section (41434)
- NHS Borders Abdominal Hysterectomy (4737)
- NHS Borders Orthopaedic (53737)
- NHS Borders Caesarean Section (8486)
- Glasgow Nuffield Hip Arthroplasty Surgery (62664)
- Health Protection Scotland Orthopaedic

Forms are named and coded. Names are usually the hospital or NHS board name followed by the category of procedure. Form codes are on all surveillance forms issued by HPS. The form code is used to differentiate forms with multiple versions. The form code is found on the bottom right hand side of the form above the key block.

How to find form codes



Surgical Site Infection Surveillance NHS Greater Glasgow & Clyde Caesarean Section



PRE OPERATIVE Please write inside number and date frames or place a cross (X) in the appropriate box using a black pen

Q1 Hospital <input type="text"/>		Q2 Patient CHI Number <input type="text"/>	
Q3 Presentation to Surgery Mark (X) inside relevant box <input type="checkbox"/> Planned <input type="checkbox"/> Unplanned <input type="checkbox"/> Unknown	Q4 Age <input type="text"/> Enter this if unknown → <input type="text"/>	Q5 Date of Admission <input type="text"/> / <input type="text"/> / <input type="text"/> D D / M M / Y Y Y Y	Q6 Date of Operation <input type="text"/> / <input type="text"/> / <input type="text"/> Enter this if unknown → <input type="text"/> / <input type="text"/> / <input type="text"/>
	Q7 Booking Patient Height (nearest whole no. of cms) <input type="text"/> Enter this if unknown → <input type="text"/>	Q8 Booking Patient Weight (nearest whole no. of kgs) <input type="text"/> Enter this if unknown → <input type="text"/>	Q9 Hair Removal <input type="checkbox"/> Other <input type="checkbox"/> Unknown <input type="checkbox"/> Clipping only <input type="checkbox"/> Shaving

PERI OPERATIVE

Q10 What was the duration of labour? H H : M M Enter this if unknown → <input type="text"/> : <input type="text"/>	Q11 Anaesthesia type Mark (X) in one or more boxes <input type="checkbox"/> General <input type="checkbox"/> Other <input type="checkbox"/> Local <input type="checkbox"/> Unknown <input type="checkbox"/> Regional	Q12 ASA classification Mark (X) inside relevant box <input type="checkbox"/> 1 Normal healthy patient <input type="checkbox"/> 2 Patient with mild systemic disease <input type="checkbox"/> 3 Patient with severe systemic disease not incapacitating <input type="checkbox"/> 4 Patient with an incapacitating systemic disease that is a constant threat to life <input type="checkbox"/> 5 Moribund patient who is not expected to survive for 24 hours with or without an operation	Q13 Was patient given antibiotic prophylaxis? <input type="checkbox"/> Yes - single antibiotic (Answer Q14 onwards) <input type="checkbox"/> Yes - more than one antibiotic (Answer Q14 onwards) <input type="checkbox"/> No (Answer Q15 onwards) <input type="checkbox"/> Unknown (Answer Q15 onwards)
Q14 Name of prophylactic antibiotic(s) given: (Set up to 4 antibiotics if given together as fast administration) 1: <input type="text"/> 2: <input type="text"/> 3: <input type="text"/> 4: <input type="text"/>			
Q15 Date and time prophylactic antibiotics first given Enter this if unknown → <input type="text"/> / <input type="text"/> / <input type="text"/> : <input type="text"/> : <input type="text"/> 24 hour clock D D / M M / Y Y Y Y H H : M M			
Q16 Alcohol-based skin preparatory agents for preoperative antisepsis in the operating room <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown Mark (X) inside relevant box	Q17 Start time of operation (Knife to skin) D D / M M / Y Y Y Y H H : M M 24 hour clock <input type="text"/> / <input type="text"/> / <input type="text"/> : <input type="text"/> : <input type="text"/>	Q18 Completion time of operation (Wound closure completed) Enter this if unknown → <input type="text"/> / <input type="text"/> / <input type="text"/> : <input type="text"/> : <input type="text"/>	Q19 Which grade of surgeon performed the operation? Mark (X) inside relevant box <input type="checkbox"/> Consultant <input type="checkbox"/> F2 <input type="checkbox"/> Speciality Registrar <input type="checkbox"/> Unknown <input type="checkbox"/> Non Consultant Career Grade
Q20 Was a consultant present in the theatre suite? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown		Q21 Consultant code (Enter code provided by hospital) Enter this if unknown → <input type="text"/>	
Q22 Perioperative glucose monitoring performed and documented <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown Mark (X) inside relevant box		Q23 OPCS- 4 Code <input type="text"/> - <input type="text"/> R17 Elective Caesarean R17.1 Elective upper uterine segment caesarean delivery R17.2 Elective lower uterine segment caesarean delivery R17.8 Other specified R17.9 Unspecified X98.9 OPCS4 code not known	
Q24 More than one procedure performed <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown Mark (X) inside relevant box		Q25 Was blood loss greater than 1.5 litres? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown Mark (X) inside relevant box	
Q26 Patient normothermia within one hour of the end of operation <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown Mark (X) inside relevant box			

*Please refer to the latest SSI protocol version and contact NSS.HPSSSHAIP@nhs.net for any advice.



This example form's code is 42860

Choose the form from the list and click the "Continue" button.

3.2 Entering the surveillance data using the form pages

Each SSI surveillance form issued by HPS has a number of sections, which are made up of groups of questions.

Commonly these are:

- Pre-operative section
- Peri-operative section
- Post-operative section

This structure is also mirrored on the online forms system by the way of form pages. Each online form is made up of form pages.

If you take a paper form and look at the sections that appear on it, you will find that there is a corresponding online form page that matches that section. Online forms will have a pre-operative page, a peri-operative page and a post-operative page.

You can move between the pages of a form using the forms “Next” and “Previous” buttons. The figure below shows a typical online data entry form page.

An online data entry form

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[Main Menu](#)

Add a New Operation

NHS Borders Orthopaedic - 9081

1. **Pre Operative Details**> 2. Peri Operative Details> 3. Post Operative Details> 4. Microorganisms>

1. Patient CHI number:

2. Presentation to surgery:

Planned

Unplanned

Unknown

3. Sex:

Male

Female

Unknown

4. Age:

5. Admission date: / /

6. Operation date: / /

As well as the page title, each page has (in order of appearance):

The form title - in this case “NHS Borders Orthopaedic (53737)”

- The page title strip – here the page title is “Pre-operative details”
- The patient identification code – this is the patient identification code relating to the surveillance record.
- The page questions – in this example there are six questions
- The form navigation buttons – this differs depending on which page you are on but here on this page there are three navigation buttons: “Next Page”, “Save for later” and “Cancel”

Page title strip

This strip lets you know what page you are on within a form.

[1. Pre Operative Details](#)> [2. Peri Operative Details](#)> [3. Post Operative Details](#)> [Quality Assurance](#)

The page title is shown beside the page number. Within the page title strip each page title has three states.

- **Completed** – page titles in regular blue text indicate pages that you have completed
- **Active** – page titles in bold blue text indicate that you are currently on that page.
- **Not started** – page titles in grey show pages that have not yet been reached for the surveillance record.

Each form page must be completed before you can move on to the next.

Page questions

Each form is made up of questions. There are three classes of question that are used to make up forms.

- Core – these questions must be answered as their answers make up the surgical site infection surveillance (SSIS) programme core dataset.
- Extension – different procedure categories extend the core dataset in different ways. Whether or not these questions require to be answered depends on the category of procedure for the operation.
- Local – whether you answer these is left to your discretion, as they are not required by HPS.

There are usually several questions on a form page and each can vary in the type of answer required. There are seven controls that you will need to be familiar with to answer questions:

Textbox

7. Height:

A simple textbox where you type the answer using your keyboard. For an unknown answer, type in the unknown value given on the form e.g. 999.

Radio button list

3. Sex:

- Male
- Female
- Unknown

A list with options. You pick one answer by clicking on it. For an unknown response, choose the unknown option.

Drop down list

17. Diagnosis: ▼

A list with options. Usually drop down list questions have more options than a radio button list. You click the down arrow to see the options. Again, you pick one answer. For an unknown response, choose the unknown option.

Check box list

11. Anaesthetic types used:

- General
- Local
- Regional
- Other
- Unknown

A list with options. Similar to a radio button list but this time you get to choose as many options as you like. For an unknown response, choose the unknown option.

Date picker

2. Admission date: / /

A series of three drop down lists used for choosing a date. One for day, one for month and one for year. For an unknown response, pick "09 September 9999". For a not applicable response (not applicable to all questions) choose "10 October 9999".

Date time picker

11. Operation start date and time: / / , :

A series of five drop down lists used for choosing a date and a time. One for day, one for month, one for year, one for hour and one for minute. For an unknown response, pick "09 September 9999 99:99".

Duration picker

10. Duration of labour in hours and minutes: Hours Minutes

Two drop down lists for choosing hours and minutes. Note that this is different from time as you can pick as many hours as required i.e. you are not limited to 23. The minutes selection is limited to 59. If you need more minutes then you add 1 to hours and start from 0 minutes again.

Notice that some questions depend on the answers given to other ones. For example, if you specify that a patient did not receive any antibiotic prophylaxis, then you will not have a response for the date and time on which antibiotic prophylaxis was given to the patient. And the vice versa also applies i.e. if the patient was given antibiotic prophylaxis then you will have a response to the date and time of their administration. So this certain question only becomes enabled and required when you select an option of their master question. The whole set of infection relevant questions works like this. Infection relevant questions only become enabled and required when the patient has had an SSI diagnosed.

Tool tip

13. Antibiotic prophylaxis:

Yes

Yes - more than

No

Whether or not the patient was given antibiotic prophylaxis for the operation.

You can also get a description of the data item that the question relates to by hovering over the question with the mouse for more than one second. The boxes that pop up are called tool tips.

Besides regular form questions i.e. all those described above, some forms will also contain fixed value questions. These questions are hidden from you and usually relate to questions where there can only be one logical answer. For example, orthopaedic operations will always involve the use of an implant, caesarean section procedures will always be performed on females.

Question validation

There are two levels of validation for data entry. Question level and form level.

Question level validation firstly checks whether the question has been answered and then checks the answer is sensible and the system can interpret correctly.

Question level validation

16. Operation completion date and time: 07 / May / 2004 , hh : mm

You must give an operation completion date and time

Only core dataset values are subject to question level validation.

Extension questions are validated during form level validation. This is because a form can contain questions for several procedure categories and for each procedure category there will be a set of questions that extend the dataset specific to and only required for that procedure category. Therefore extension questions cannot be validated until procedure category has been specified for the record.

Form level validation checks whether the form as a whole makes sense and considers everything on the form and cross checks values with each other.

Form navigation

Each form page has a set of navigation buttons. These are:

- **Next** – saves the current page and moves you to the next page in the form. If you are on the last form page then this will move you on to the quality assurance screen
- **Previous** – moves you back to the last page in the form. If you are on the first page in a form then this button will be disabled
- **Save for later** – saves the current page and returns you to the operations screen.
- **Cancel** – does not save the current page and returns you to the operations screen.

Clicking “Next Page” and “Save for later” will trigger question level validation as you are attempting to save the answers to the page’s questions. Clicking “Previous Page” or “Cancel” does not.

3.3 Quality assurance and form level validation

When you have completed all pages of a data entry page. You are taken to the quality assurance screen.

The quality assurance screen

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[Main Menu](#)

Add a New Operation

NHS Borders Orthopaedic - 9081

1. Pre Operative Details> 2. Peri Operative Details> 3. Post Operative Details> 4. Microorganisms> 5. Antimicrobials> **Quality Assurance**

Patient identification code: 123456

Primary

The following questions require action.

You will not be able to complete this record until you have changed the answers given to the following questions

Question	Answer	Anomaly	
1. Patient CHI number	123456	Patient CHI number must be 10 characters long	View
5. Admission date	3 June 2017	The patient cannot be admitted after the operation	View
23. Operation completion date and time	17 June 2017 23:24	The operation cannot take any longer than 24 hours to complete	View
28. Laterality of procedure	Not applicable	You must choose a laterality for orthopaedic procedures	View
53. Date surveillance discontinued	12 October 2018	Surveillance cannot last any longer than 30 days after the operation has been completed (17th June 2017)	View

Secondary

The following questions may or may not require action.

Please check through the following anomalies before completing this record

Question	Answer	Anomaly	
4. Age	105	Please check that the patient is 105 years old and is having a Knee arthroplasty	View

Quality assurance checks whether the surveillance record makes sense as a whole. Any questions that have been answered incorrectly or in a contradictory way will be displayed on this screen as validation tasks. There are two types of task.

- Primary validation tasks – you will not be able to complete the surveillance record unless you work through any primary validation tasks.
- Secondary validation tasks – these relate to questions that are more subjective in nature and don’t always require correction. They do not require to be worked though in order to complete the surveillance record. An example of such a validation task would be where you entered the operation start and completion times for an unusually long operation.

Each validation task displayed has three properties:

- Question – the question number and name that the validation task relates to
- Answer – the answer you gave for the question
- Anomaly – the reason why the answer requires validation

To correct a validation task, click on the “View” link at the end of the line. You will be taken to the relevant page to correct the anomaly.

Correction page screen

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[Main Menu](#)

Add a New Operation

NHS Borders Orthopaedic - 9081

1. Pre Operative Details> 2. Peri Operative Details> **3. Post Operative Details**> 4. Microorganisms> 5. Antimicrobials> Quality Assurance

Patient CHI number: 123456

Some questions have not been answered properly. Please check below for specific details.

35. Reintervention within 24 hours:
 Yes
 No
 Unknown

36. Reintervention start date and time: 01 / June / 2017 , hh : mm

37. Reintervention completion date and time: 01 / June / 2017 , hh : mm

38. Thromboprophylaxis: Both

39. Date and time prophylactic antibiotics last given: 01 / June / 2017 , hh : mm

You must specify a valid Date and time prophylactic antibiotics last given otherwise enter 09 September 9999 99:99

The page is the same as the form page but includes details of the error at the top of the screen.

Once you have corrected the question click “Continue”. You will be taken back to the quality assurance screen. If you corrected the validation task successfully then the task will be no longer be displayed.

Once you have cleared all primary validation tasks and checked over all secondary validation tasks. Click “Next” or “Save for Later”.

3.4 Completing the record

To complete the record you must complete all primary validation tasks on the quality assurance screen.

Confirm operation details screen

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[Main Menu](#)

NHS Borders Orthopaedic - 9081

Confirm Operation Details

Please confirm the operation details below.

Once you click Complete you will not be able to change these details.

Hospital:	Borders General
Implant:	Yes
1. Patient CHI number:	1234567891
2. Presentation to surgery:	Planned
3. Sex:	Male
4. Age:	105
5. Admission date:	29 May 2017
6. Operation date:	01 June 2017

Once you have done this you will be taken to the record completion screen. The purpose of this screen is to allow you to browse over the surveillance record details for any last visual checks.

Each question is displayed in order of question number. Any fixed value answers that the form contains are displayed at the top.

Please be aware that if the SSI diagnosed question was answered with “No”, then the infection questions and answers will not be displayed.

If you want to change anything, click “Cancel” and you will be returned to the operations screen.

If you are satisfied with your responses to all questions click complete.

The surveillance record is now complete. Completed operations cannot be edited, deleted or changed so be sure when you click “Complete” that all entered details are correct.

Completed operations are immediately included in any reports you view for the relevant period. In other words, you can view reports on them as soon as they are completed.

When the operation is complete there are three options remaining:

- **Add another operation using the same form** – this starts a new surveillance record and takes you back to the first page of the form.
- **Add another operation using a different form** – this takes you back to the form selection screen.
- **View operations** – this takes you to the operations screen.

Click the link of the option you want to take. As always, you can also click the “Main Menu” link to return to the main menu.

4 VIEWING OPERATIONS

To go to the operations screen, go to the “Main Menu” and click on the “View entered operations” link.

The operation screen

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[Main Menu](#)

Manage Operations

To view operations that have been entered and uploaded use the filter selection below, and click view.
You can use a more filters by clicking on the advanced search link.

Filter operations by:

Status:

Hospital:

User:

Number of records to display per page:

[Advanced search...](#)

Viewing 1 to 2 of 2 records [Restore deleted operations...](#)

■	Operation ID	Patient Number	Hospital	Operation Date	Category of Procedure	SSI	Status	Date created	Created by
---	--------------	----------------	----------	----------------	-----------------------	-----	--------	--------------	------------

The operations screen lists all the surveillance records that your hospital(s) has submitted to the SSI programme since 01 April 2002. This table is called the operations grid.

The grid has several columns:

- **Operation ID** – this is the unique operation id that this system uses to manage and tag surveillance records. It is more specific than the patient number and completely unique as it has the advantage in that it is shorter and unique for same patient lateralities or operations for the same patient but on a different date. You can choose to use this or the patient number, whichever you prefer.
- **Patient CHI number** – the Community Health Index (CHI) number that is assigned to the patient at your healthcare facility.
- **Hospital** – the name of the hospital or healthcare facility where the operation took place.
- **Operation date** - the date on which the incision was made.
- **Category of procedure** – this can be blank if the surveillance record is incomplete and the form is for multiple procedure categories. It depends on how many pages you have completed.
- **SSI diagnosed** – again like above this can be blank depending on how much of the surveillance record has been completed.
- **Status**
 - Complete records have been validated and have passed quality assurance and are final therefore cannot be edited or deleted. They are also used to make up reports.
 - Incomplete records are records that you have started but clicked on “Save for Later” or have opted out of. You can complete, update, edit or delete incomplete records.
 - Contact the SSHAIP team if you need to make a change to a completed record.
- **Date created by** – the date on which the record was created.

- **Created by** – the person who created the record. Note that you will be able to see records created by other users of the system. Administrator username will be shown beside records that have been uploaded.

Each column can be sorted by clicking on the column header. One click will sort in ascending order; a second click will reverse the order to descending.

The total number of surveillance records is displayed at the top left hand side of the grid.

The total number of records

Viewing 1 to 50 of 89716 records

Moving through the pages of the grid is also very easy. If you look at the bottom left of the grid you will see a list numbers. These are page numbers.

The pages of the grid

1 2 3 4 5 6 7 8 9 10 ... Last

The current page is displayed in plain black text, to go to the page simple click on its number. To go to the last page, click on “Last” and to go to the first page click on “First”.

4.1 Performing a simple search

You can search for a particular record using the filter drop down lists at the top of the operations screen. These are used in combination to filter the records displayed in the grid. They are:

- Filter operations by status – you can choose to see All, Incomplete or Complete records. The default is all.
- Show operations created by – you can see records created by everyone who has access to the same datasets as you or just you. The default is any user.
- Number of records to display per page - the number of surveillance records to display per page. Choosing larger numbers will be slightly longer but mean you will see more records per click.

When you want to view records for your selection click the “View” button.

4.2 Performing an advanced search

You can also search more specifically. To do this, click on the “Advanced search” link. This will take you into advanced search mode.

The advanced search mode screen

View Entered Operations

To view operations that have been entered and uploaded use the filter selection below, and click view.

You can use a more filters by clicking on the advanced search link.

Operation number:

Patient number:

Hospital: Hold Ctrl and click to select more than one hospital

Inverclyde Royal
Royal Alexandra
Vale of Leven
Gartnavel General
Western Infirmary
Glasgow Royal Infirmary
Victoria Infirmary
Queen Elizabeth University Hospital

Operation date between: / / and / /

Category of procedure: Hold Ctrl and click to select more than one procedure

Abdominal hysterectomy
Breast surgery
CABG
Caesarean section
Cardiac surgery
Cranial surgery
Hip arthroplasty
Knee arthroplasty

SSI diagnosed:

Operation status:

Date created between: / / and / /

Operations entered by:

Number of records to display per page:

[Reset Form](#)

[Return to simple search...](#)

Viewing 1 to 50 of 64519 records

■	Operation ID	Patient Number	Hospital	Operation Date	Category of Procedure	SSI	Status	Date created	Created by
---	--------------	----------------	----------	----------------	-----------------------	-----	--------	--------------	------------

There are several controls for the advanced search and like simple search, these are used in combination with each other.

- Selection checkbox – use this to select and delete records.
- Operation Number – type the operation id in this box if you know it and the search will return a match for it.
- Patient Number – type the CHI number of the patient in this box. If a partial CHI number is entered the search will return a match on any records with those numbers contained within the CHI in that order.
 - For example, typing “4564” would return records with patient numbers like “4564111111”, “1114564111” or “1111114564”
- If you don't know the patient number or want to omit it from the search then leave it blank.
- Hospital – You can select multiple hospitals by either clicking or dragging the mouse down the box or by holding the ctrl button on your keyboard and clicking. If you don't want to specify a hospital leave “Any” selected.
- Operation date between – you can narrow the number of records returned by choosing dates between a date range.
- Category of procedure – you can select multiple procedure categories using the same process as outlined above for hospitals. If you don't want to specify a category of procedure then leave “Any” selected.
- SSI diagnosed – if you are searching for records in which an infection was diagnosed then choose “Yes”. If you want to omit this, leave “Any” selected.
- Operation Status – returns matches on the status of the surveillance record. If you are looking for incomplete record then choose “Incomplete”, otherwise leave “Any” selected.
- Date created between – similar to operation date only this time it returns a match on the date on which the record was created.
- Operations entered by - you can see records created by everyone who has access to the same datasets as you or just you. The default is “All users”.
- Number of records to display per page – the number of surveillance records to display per page. Choosing larger numbers will be slightly longer but mean you will see more records per click.

When you are ready to search, click the “Search” button. The search results are displayed just as before giving you a total number of records displayed at the top left hand corner of the grid.

To return to simple search, click on the simple search button.

4.3 Continuing with incomplete operations

To continue with an incomplete surveillance record, click the “View” button at the end of the operation row inside the operations grid.

You will be taken to the next relevant form page for the surveillance record and can resume data entry.

4.4 Viewing completed operations

Viewing a completed operation is much the same as continuing with an incomplete operation. Just click on the “View” button on the operation inside the operations grid.

Viewing a completed operation screen

SSIRS
Scottish Surgical Site Infection Reporting System
[Main Menu](#)

View Operation Details

Data entry for this operation has been completed.

This operation was entered using the form Uploaded Data Form For Caesarean Section

1. Hospital:	Unknown
2. Patient identification number:	111111
3. Admission date:	24 March 2008
4. Operation date:	26 March 2008
5. Presentation to surgery:	Unplanned
6. Sex:	Female
7. Age:	22
8. Height:	150
9. Weight:	92
10. Duration of labour in hours and minutes:	0:00
11. Anaesthetic types used:	Regional
12. ASA classification:	Unknown
13. Antibiotic prophylaxis:	Yes - single antibiotic
14. Antibiotic administration date and time:	26 March 2008 13:04:00
15. Operation start date and time:	26 March 2008 12:50:00

Each value for the surveillance record is displayed in order of question for you to see. Also indicated is the source of the record – either uploaded or online data entry.

4.5 Deleting incomplete operations

To delete an incomplete operation, return to the operations screen. Run either a simple search or an advanced search to find the record you want to delete. When you find it, select the operation by clicking the checkbox at the far left hand side of the line. You can select multiple records or you can select the whole page by clicking the checkbox in the column header.

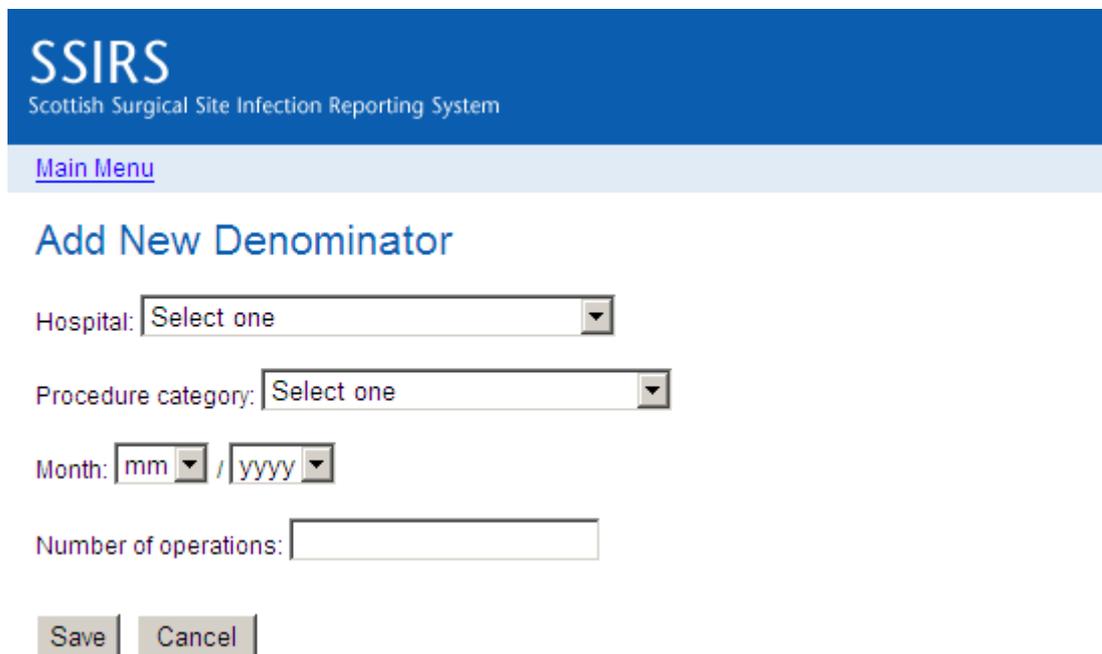
To delete your selection, click the “Delete Selected” button. You will be taken to the confirmation screen. If you are sure you want to delete the selection, click on the “Yes, delete them” button. To cancel, just click the “Cancel” button.

You can only delete incomplete operations. Completed operations are considered final and cannot be deleted. Please contact the SSHAIP team if you need anything deleted.

5 ADD DENOMINATOR DATA

Denominator data is entered each month for sites carrying out SSI Light Surveillance. In order to enter this data go to the main menu and click on the “Add Denominator Data” link. You will be taken to the denominator data entry screen.

The denominator data entry screen



The screenshot shows the SSIRS (Scottish Surgical Site Infection Reporting System) interface. At the top, there is a blue header with the SSIRS logo and the text 'Scottish Surgical Site Infection Reporting System'. Below the header is a light blue bar with a 'Main Menu' link. The main content area is titled 'Add New Denominator'. It contains the following fields: 'Hospital:' with a dropdown menu showing 'Select one'; 'Procedure category:' with a dropdown menu showing 'Select one'; 'Month:' with two dropdown menus for 'mm' and 'yyyy'; and 'Number of operations:' with a text input field. At the bottom of the form are two buttons: 'Save' and 'Cancel'.

To enter denominator data pick the hospital and procedure category from the drop down list and enter the month and year the data is for. Then enter the total number of procedures carried out for that month and click on “save”.

Note that if data for a particular month and procedure category has been entered previously, it will not accept new data and a warning message will appear to say that data for that month already exists.

Warning message

* A denominator record for this hospital, procedure and month already exists

Any changes to the entered data have to be requested from the SSHAIP team as once data is entered it is locked.

6 VIEW EXISTING DENOMINATOR DATA

In order to view the entered denominator data go to the main menu and click on the “View Existing Denominator Data” link. You will be taken to the screen below.

The view denominator data screen

SSIRS
Scottish Surgical Site Infection Reporting System

[Main Menu](#)

View Denominator Data

[Add a denominator record](#)

Denominator records are displayed below.

To view or edit a record, click on the View/Edit link. To delete a record click on the Delete link.

Number of records to display: 100

Healthboard: Any health board

Hospital: Any hospital

Procedure category: Any procedure category

First month (MM/YYYY): Last month (MM/YYYY):

First date edited (DD/MM/YYYY): Last date edited (DD/MM/YYYY):

Viewing 1 to 100 of 7423 records(s), sorted by **descending Date Edited**

ID	Hospital	Procedure Category	Operations	Month	Edited By	Date Edited	PDS Rate
----	----------	--------------------	------------	-------	-----------	-------------	----------

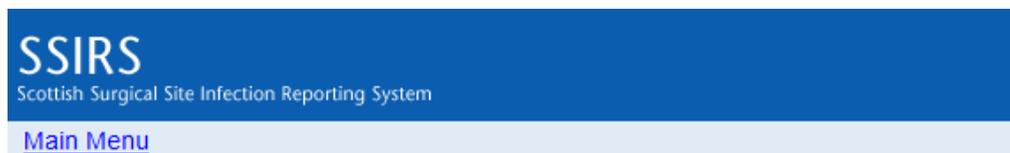
Here you can browse through all your data entries per board, hospital, procedure category or date frames. The data filter on this screen is quite helpful for sites that have more than one hospital involved in surveillance and/or a number of procedures categories.

7 DOWNLOADING PDF FORMS

To view, save or print PDF data collection forms, go to the main menu and click on the “Download PDF forms” link.

On the download PDF forms page you will see links for all the forms that you are able to download.

The Download PDF forms page



Download Forms

To download a pdf version of a data entry form, click the relevant link below.

To save the form to your computer, right click on the link and select "Save Target As..."

The following forms are available to download:

[NHS Tayside Caesarean Section - 4364 - uploaded on 05/03/2018 14:38:37](#)

[NHS Tayside Orthopaedic - 50148 - uploaded on 05/03/2018 12:38:33](#)

[NHS Orkney Caesarean Section - 20004 - uploaded on 23/03/2018 09:48:49](#)

[NHS Highland Caesarean Section - 14895 - uploaded on 09/03/2018 13:03:21](#)

To view a form, click on the link. To save a form, right click on the link and choose “Save Target As...”

8 VIEW REPORTS

To view reports on surveillance data, return to the main menu and click on the “View reports” link. This will take you to the “View Reports” screen.

The view reports screen

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[Main Menu](#)

View Reports

Choose your report criteria and click View Report to see the report.

Report type:

Hospital:

Start date: / /

End date: / /

Category of procedure:

Type of knee or hip procedure: Any type
 Primary
 Revision

Extent of knee or hip procedure: Any type
 Total
 Partial or hemi

Show infections detected during: Any point in the surveillance
 The admission in which the operation was performed
 Post discharge or on readmission
 Readmission only
 Admission or Readmission
 Admission or Post discharge

compare this data with another site

End of 30 days surveillance
 End of 10 days surveillance

The view reports screen has a number of controls:

- Report type – specifies the type of report by title. See section 6.13 for a list of report types.
- Hospital – specifies the hospital or area that you want to report.
- Start date and end date – the earliest and latest dates to report.
- Category of procedure – the procedure to report on.
- Type of knee or hip procedure – only available when “Knee arthroplasty” or “Hip arthroplasty” is chosen for category of procedure. The options are primary or revision.
- Extent of knee or hip procedure – again only available when “Knee arthroplasty” or “Hip arthroplasty”. The options are total and partial/hemi.
- Show infection detected – this lets you specify which type of infections to include in the report.

- Any point in surveillance – all infections.
 - The admission in which the operation was performed – infections detected when the patient was still in hospital i.e. an inpatient.
 - Post-discharge or on readmission – infections detected after the patient left hospital or when they were readmitted.
- Compare with data from another site – this option is available for certain reports. Will compare data with the exact same parameters but with another hospital that you have access to or Scottish data as a whole.

Depending on what report type you select, the “Hospital”, “Category of procedure”, “Type of knee or hip procedure”, “Extent of knee or hip procedure”, “Show infections detected during” and “compare this data with another site” options may be disabled.

When you are ready to view the report, click the “View Report” button. After a few seconds you will then be taken to the report screen.

The report screen contains two parts, the graph and the summary table.
You can print this using your browsers print command (usually under the file menu).

To return to the report criteria screen click your browsers back button.

Please note that if your hospital carries out light SSI surveillance, most of the reporting features will be limited to the SSI detected forms since detailed denominator data is not available in SSIRS for analysis.

9 DOWNLOAD DATA

To download surveillance data, go to the main menu and click on download data. You are taken to the download data screen.

Download data screen

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[Main Menu](#)

Download Data

Select criteria for downloading data.

Data will be downloaded in Comma Separated Values (CSV) format.

Hospital: Hold Ctrl and click to select more than one hospital

- All
- Inverclyde Royal
- Royal Alexandra
- Vale of Leven
- Gartnavel General
- Western Infirmary
- Glasgow Royal Infirmary
- Victoria Infirmary
- Queen Elizabeth University Hospital
- Queen Mothers Hospital
- Princess Royal Maternity

Operation date between: 01 / April / 2002 and 30 / September / 2017

Category of procedure: Hold Ctrl and click to select more than one procedure

- Any
- Abdominal hysterectomy
- Breast surgery
- CABG
- Caesarean section
- Cardiac surgery
- Cranial surgery
- Hip arthroplasty
- Knee arthroplasty
- Large bowel surgery
- Major vascular surgery
- Reduction of long bone fracture

SSI diagnosed: Any

Include local data item fields in export

Translate numeric field values (much larger file)

Lookup Tables

[Download core lookup tables](#)

[Download core and local lookup tables](#)

You download data in much the same way as doing an advanced search i.e. specify what surveillance you are interested in and when you are finished click the “Download” button.

After a few moments a message will be displayed asking “Do you want to open or save the file?” The file is in a comma separated value (CSV) format. Most statistical and database packages will be able to open the file.

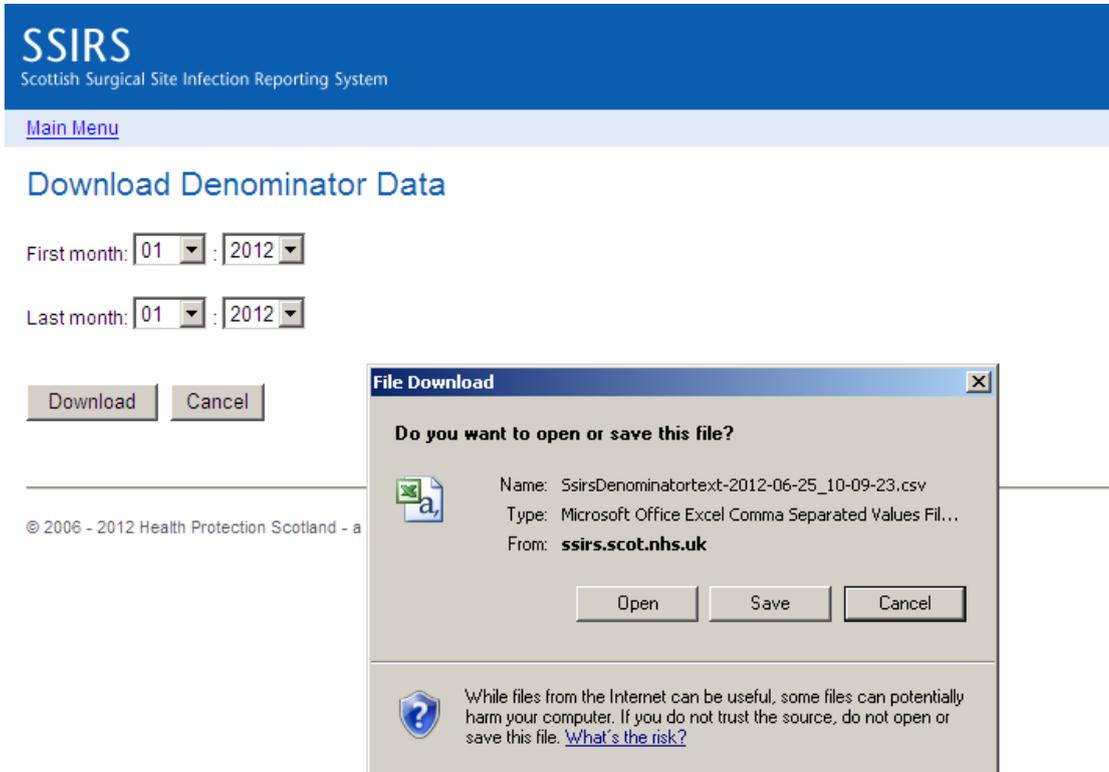
To cancel, click on the “Cancel” button and you will be taken to the main menu screen.

To download lookup table to translate numeric values into text, click on the relevant link at the bottom of the page. The file contains the text values for all list fields within the database.

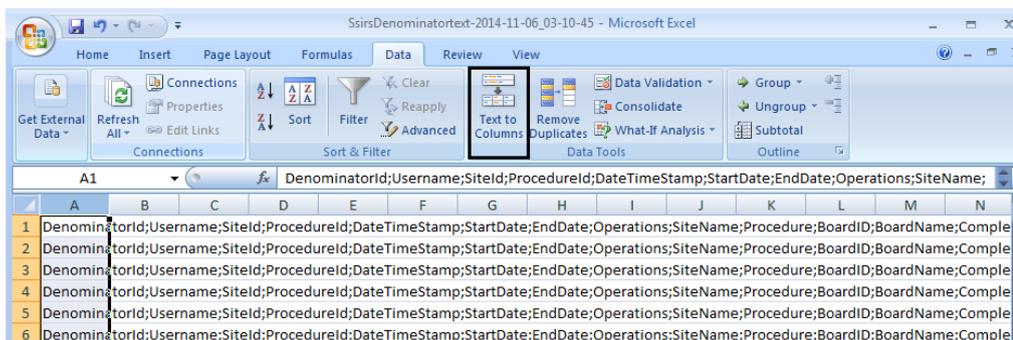
10 DOWNLOAD DENOMINATOR DATA

Denominator data can be downloaded from the 'Download denominator data' link on the Main Menu. You will be taken to the screen below where you can specify the time period that you want the data for, and by clicking on the download button you will be asked if you want to open or save the data.

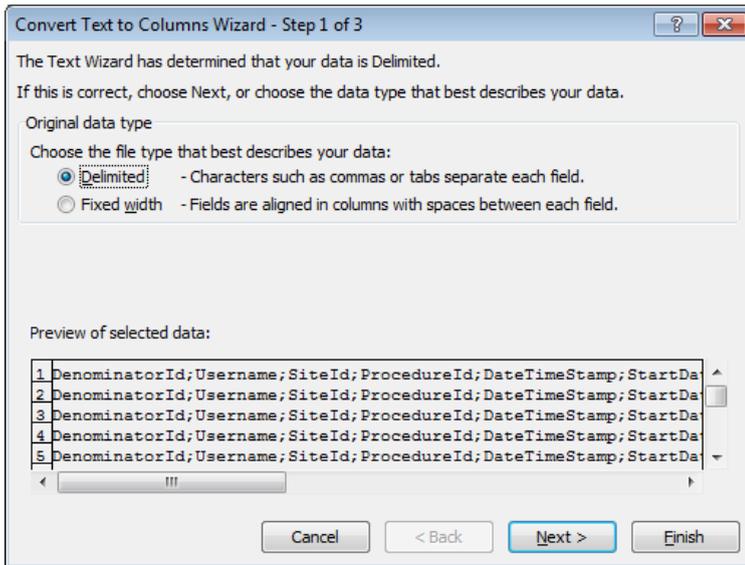
Download data screen



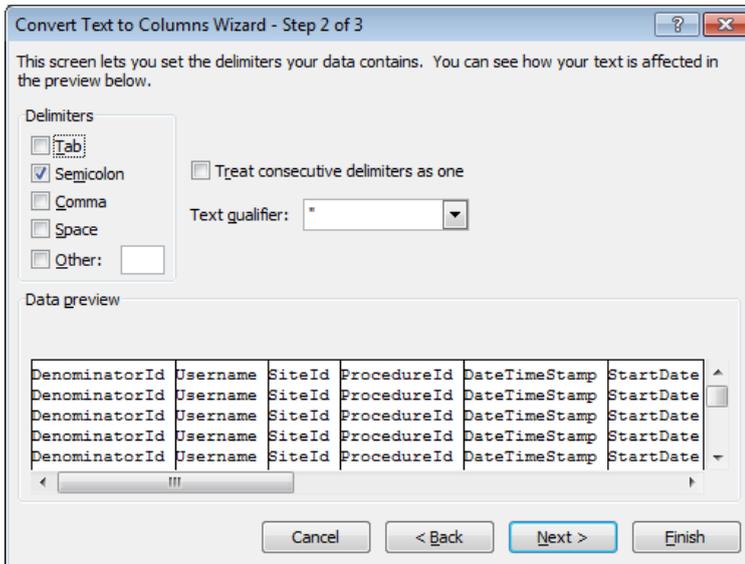
The file is in a CSV format. The downloaded data will need to be converted into a format that can be read. To do this open the downloaded file with Microsoft Excel and highlight column A by clicking on the A. Then from the Data Tab in Microsoft Excel select the option 'Text to Columns'.



This will result in the Convert Text to Columns Wizard opening. On the first step of this Wizard select Delimited and click Next.



On step 2 select the Semicolon and then select Finish.



The data will now be separated into columns and the file can be saved.

To cancel, click on the “Cancel” button and you will be taken to the main menu screen.

11 IMPORTING ICNET FILES TO SSIRS

If you use the SSI module in ICNet to collect SSI surveillance data, please contact HPS NSS.HPSSSHAIP@nhs.net to arrange the electronic transfer of data to SSIRS.

11.1 File format

The data file must be of CSV format with a .txt file extension.

Specifically:

- Delimiter: , (comma)
- Qualifier: " (double quote)

For example, opening a file in a text editor would display the following:

```
"SiteID","icnetid","ProcedureID","SSIDiagnosed","PatientNumber","Sex","Present  
edness","Heat","Clinician","ClinicianSwab","ClinicianOther","NoSSICriteria","b  
oorganism1sensitive2","Microorganism1sensitive3","Microorganism1sensitive4","b  
64","678","4","2","9386151146","2","1","76","160","83","07/11/2014 00:00","0;
```

Please contact the SSHAIP team for details of minimum required fields and data types.

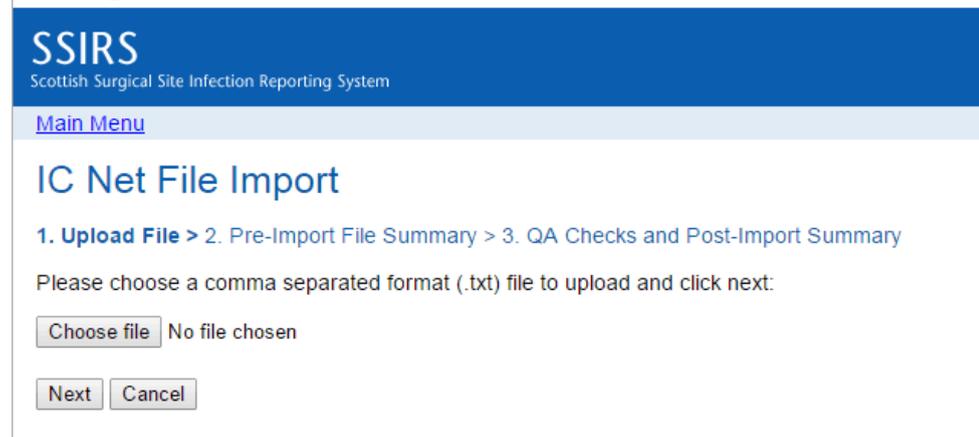
11.2 Performing the import to SSIRS

Log into SSIRS.

The IC Net import function is split into 3 steps:

1. Uploading the file
2. Confirming the file contents by checking the Pre-Import Summary
3. Observing the result of the Quality Assurance check and manually editing the records that fail the checks.

Step 1: On the main menu screen follow the "Import IC Net Files" link. You will be taken to the following screen:



Click on choose file and select the file that you want to import and click next.

At this point some validation checks are performed on the file. If the file passes the checks, you will be taken to Step 2 of the process:

IC Net File Import

1. Upload File > 2. **Pre-Import File Summary** > 3. QA Checks and Post-Import Summary

The file contains the following data...

Board	Site	ProcedureCategory	Total
Health Protection Scotland	Cadogan	Hip arthroplasty	6

Records in the file: 6

Operation date range in the file is between **07/11/2014** and **07/11/2014**

Number of records that are OK to import: 0

Number of records that are OK to import but have some invalid values that must be set to null on import: 6 [See more details](#)

Number of records that cannot be imported: 0

Total to be imported and QA checked: 6

This gives a summary of the contents of the file.

Number of records that are OK to import:

- This figure is a count of records where all of the values appear to be as expected. Please note that this is just a structural check at this point. The record may or may not fail quality assurance (QA) checks in step 3.

Number of records that are OK to import but...:

- This figure is a count of records where some mandatory values are not as expected. The record will still be imported but the offending values will be set to NULL. This will usually result in you having to manually complete the record on SSIRS after the import as it will likely fail the QA checks in Step 3.
- To see the values set to NULL for each record in the file, click on the "See more details" link.

Number of records that cannot be imported:

- This is a count of records that have found to be previously been imported. The check is on SiteId and IcNetId.
- To see the records that cannot be imported click on the "See more details" link.

Please note that once a record has been submitted to SSIRS using the IC Net Import function it cannot be resubmitted without deleting the Operation that resulted from the original import.

Step 3: This step gives the same summary as step 2 but provides a count of records that have been saved as complete and those which have been saved as incomplete.

IC Net File Import

1. Upload File > 2. Pre-Import File Summary > 3. **QA Checks and Post-Import Summary**

Board	Site	ProcedureCategory	Total	Complete	Incomplete
Health Protection Scotland	Cadogan	Hip arthroplasty	6	0	6

A total of 6 records have been quality checked

0 have passed all checks and are now saved as completed operations

6 have failed some of the checks and have been saved as incomplete operations. You must address the issues with these records on SSIRS and then save them as complete. [See more details](#)

[Go to the Operations page](#)

Imported records which pass QA checks are marked as “Complete” and do not require any further action.

Imported records which fail QA checks are marked as “Incomplete” and require you to edit them before they are accepted for reporting. These records are similar to records which are entered directly onto SSIRS but have not yet been completed.

To see the details of the QA checks that failed, click on the “See more details” link. If you require any help interpreting the IC Net Import Error Summary, please contact the SSHAIP team.

Click on the “Go to the Operations page” where you can view or edit the imported records.

The list is sorted by most recently entered Operations so the records you have just imported above will appear at the top of the list.

12 CHANGE YOUR ACCOUNT DETAILS

To change your account details, go to the main menu and click on the “Change your account details link”. You will be taken to the change account details screen.

The change your account details screen

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[Main Menu](#)

Change Account Details

Change Your Name

First name:

Last name:

Change Your Password

To change your password you must type your old password and type in your new password twice

Password rules:

- Your password must contain at least three from following four character types:
 - Numbers
 - Lower case letters
 - Upper case letters
 - Special characters e.g. !£\$%^&*()_@#?
- Your password must be at least 8 characters long
- You must not have used your new password in the past 12 months with this system
- Your password cannot contain the term "ssirs" or "password"

Your current password:

New password:

Retype new password:

Change Your Email

To change your email address you must type in your new email address twice.
A confirmation and activation email will be sent to the new address.

New email address:

Confirm Email:

To change your name, type your new first name and last name.

To change your password, type your current password, type your new password and retype your new password.

To change your email address, type your new email address and then type again to confirm.

You can do all three at once, or just one of the above. When you are done, click the “Finish” button.

To cancel, click the “Cancel” button and you will be taken to the main menu screen.

If you changed your email address, a confirmation message will be sent to your new address. For security reasons, your email address will only be updated once you follow the instructions inside this message.

13 LIST OF AVAILABLE REPORTS

All operations by*:

- ASA classification
- BMI category
- Duration of procedure
- Sex
- Sex and age
- SSI related deaths

Inferential*:

- SSI rate for each procedure with 95% confidence intervals
- Statistical process control chart of SSI rate
- Run chart of SSI rate

Enhanced Reports:

- SAPG report
- Summary report – PDF format
- Monthly report – PDF format
- Quarterly report – PDF format

SSI rates by*:

- Age group
- Antibiotic prophylaxis
- Antibiotic timing
- ASA classification
- Average length of stay
- BMI category
- Consultant
- Days to SSI diagnosis
- Duration of procedure
- Each procedure
- Endoscopic approach
- Month by each procedure
- More than one procedure
- NNIS risk index
- Operator grade
- Presentation to surgery
- Primary or revision
- Type of infection
- Wound class

*SSI rates can only be calculated if full surveillance has been carried out on the selected procedure category for the duration of the reporting period. There is ongoing development to improve SSIRS reporting functions for procedures under light surveillance.

14 CONTACT DETAILS

SSHAIP team

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