



# An Economic Evaluation of the use of Copper in Reducing the Rate of Healthcare Associated Infections in the UK

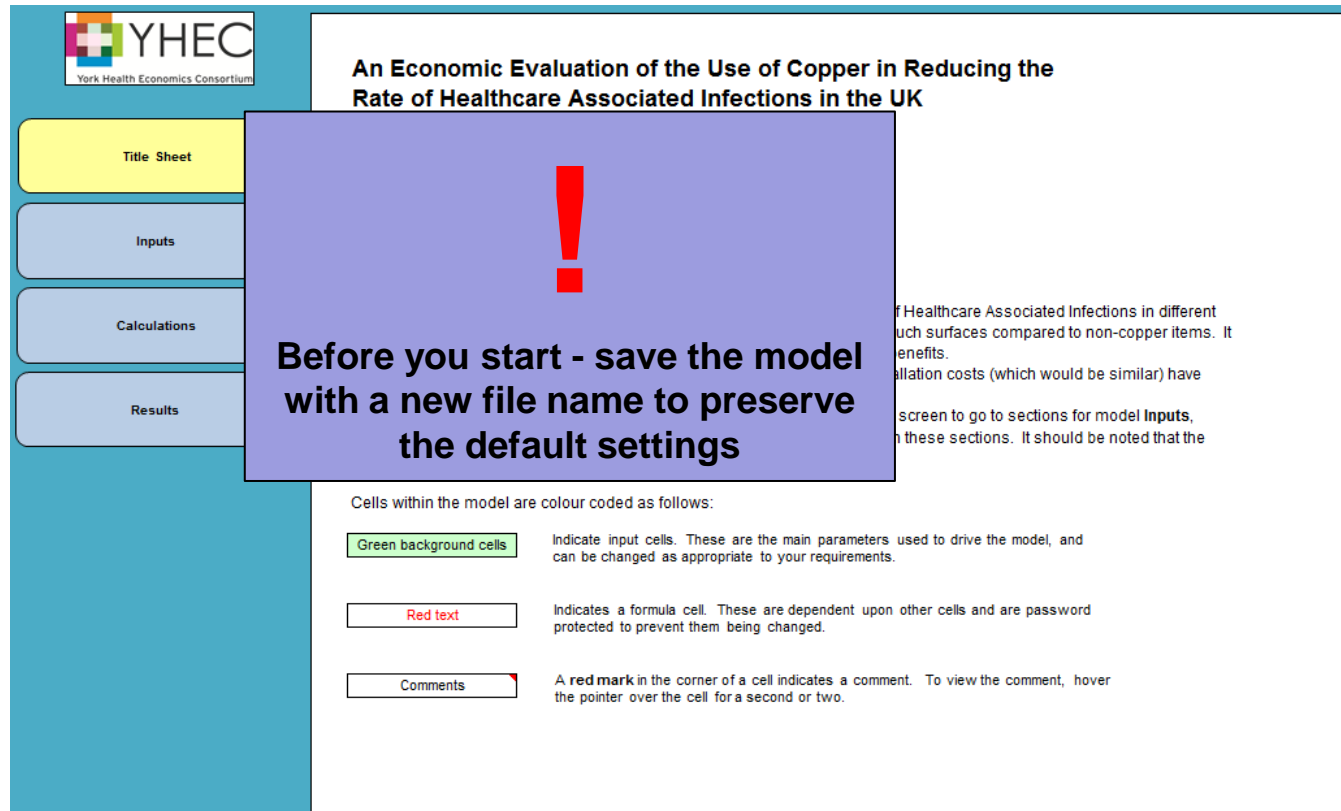
## User Guide

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THE UNIVERSITY *of York*



# The Model



The screenshot shows the YHEC model interface. On the left is a blue sidebar with the YHEC logo and four buttons: 'Title Sheet' (yellow), 'Inputs' (light blue), 'Calculations' (light blue), and 'Results' (light blue). The main area has a title 'An Economic Evaluation of the Use of Copper in Reducing the Rate of Healthcare Associated Infections in the UK'. A large purple box with a red exclamation mark contains the text: 'Before you start - save the model with a new file name to preserve the default settings'. Below this, a legend explains cell color coding: green background for input cells, red text for formula cells, and a red mark for comments. To the right of the legend, there is partially visible text about Healthcare Associated Infections.

**YHEC**  
York Health Economics Consortium

**An Economic Evaluation of the Use of Copper in Reducing the Rate of Healthcare Associated Infections in the UK**

**Before you start - save the model with a new file name to preserve the default settings**


Cells within the model are colour coded as follows:

- Green background cells** Indicate input cells. These are the main parameters used to drive the model, and can be changed as appropriate to your requirements.
- Red text** Indicates a formula cell. These are dependent upon other cells and are password protected to prevent them being changed.
- Comments** A red mark in the corner of a cell indicates a comment. To view the comment, hover the pointer over the cell for a second or two.

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# The Model



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Title Sheet

Inputs

Calculations

Results

## An Economic Evaluation of the Use of Copper in Reducing the Rate of Healthcare Associated Infections in the UK



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The purpose of this model is to calculate the number and associated costs of Healthcare Associated Infections in different clinical settings and to evaluate the benefits of a copper intervention on key touch surfaces compared to non-copper items. It then calculates the Return on Investment. These assumptions are based on a number of assumptions, therefore not been considered. The model should be navigated using the **Calculations** and **Results** and at the main areas for users are the **Inputs** and **Results**.

Cells within the model are colour coded

Green background cells	Indicate input cells that can be changed
Red text	Indicates protected cells
Comments	A red mark indicates the point of interest

**!**

**Read the instructions on the Title Sheet and others when you get to them**


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# The Model



Buttons used to navigate around the model

Buttons will turn yellow when you click on them


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Title Sheet

Inputs

Calculations

Results

**An Economic Evaluation of the Use of Copper in Reducing the Rate of Healthcare Associated Infections in the UK**


**YHEC**  
York Health Economics Consortium

The purpose of this model is to calculate the number and associated costs of Healthcare Associated Infections in different clinical settings and to evaluate the benefits of a copper intervention on key touch surfaces compared to non-copper items. It then calculates the Return on Investment (ROI) and indicates other tangible benefits. These assumptions are based on a new build or planned renovation so installation costs (which would be similar) have therefore not been considered.

The model should be navigated using the buttons on the left hand side of the screen to go to sections for model **Inputs**, **Calculations** and **Results** and at the top of the page to move to screens within these sections. It should be noted that the main areas for users are the **Inputs** and **Results** sections of the model.

Cells within the model are colour coded as follows:

Green background cells

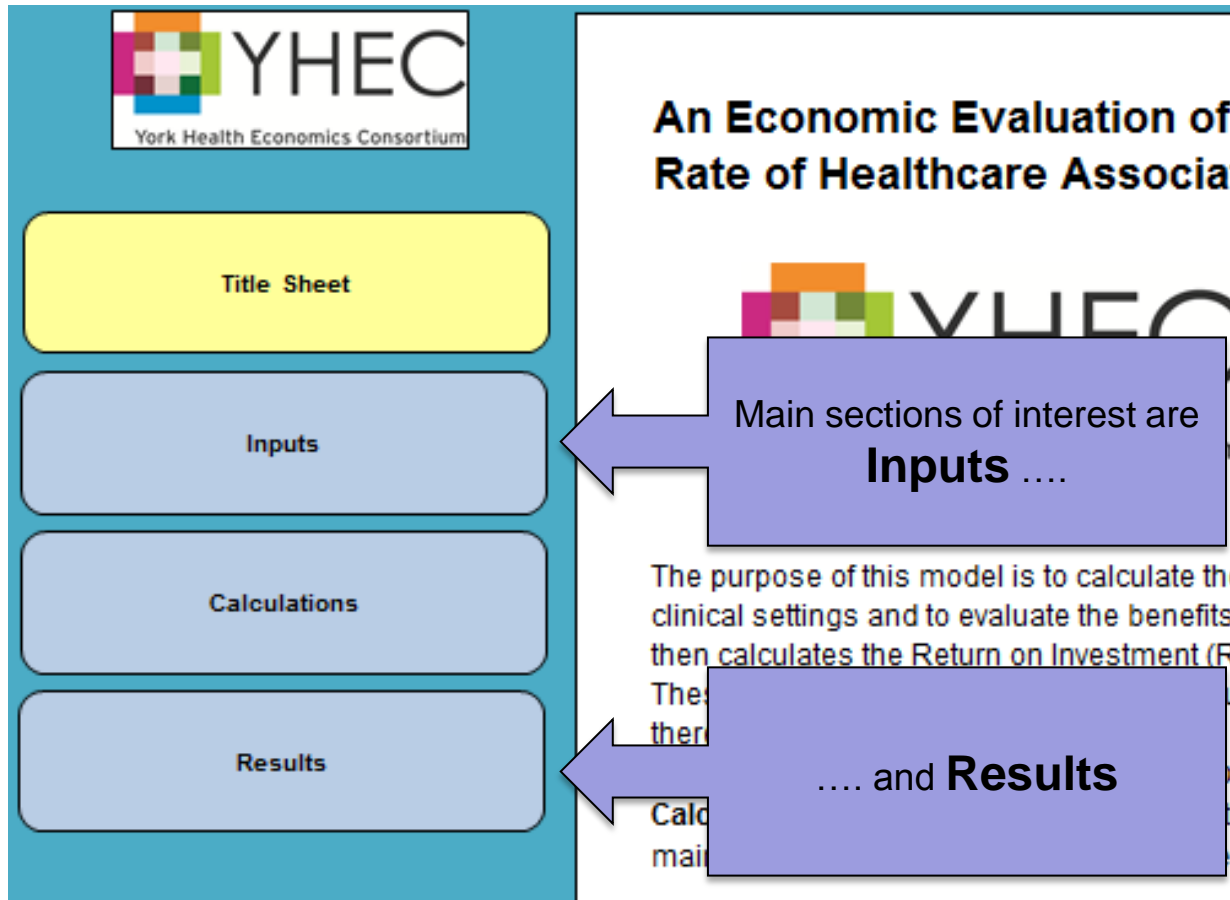
Indicate input cells. These are the main parameters used to drive the model, and can be changed as appropriate to your requirements.

dependent upon other cells and are password protected.

indicates a comment. To view the comment, hover over for two.

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# The Model



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# Set-Up





**Model Inputs**

Set-Up
Effectiveness
Cost
Resource Use
References

The purpose of this sheet is to set up the model for the appropriate hospital setting. The typical number of patients and any predictions for increases or decreases over time should be entered in the cells shaded in green. Whether or not copper items will be introduced to general wards, ICU or single rooms can be selected in the drop down menu and the name of the pathogen in the model can be entered in the appropriate green shaded cell.

Number of beds in unit	20
Average length of stay in ICU (days)	5.7
Average length of stay ward/single room (days)	3.0
Calculated number of patients per year (Cohort)	1,200
Yearly change in number of patients	0%

Setting

ICU

Infection to be included in the model:

All Healthcare Associated Infections

Currency:

GBP Pounds (£)

*The Salgado (2013) study was carried out in single room Intensive Care Units (ICUs) and showed that copper alloy upgrades of key touch surfaces lead to reduced contamination on the copper and to an associated reduction in risk of HCAs. After a microbial sampling assessment, the six most contaminated touch surfaces (hot spots) were upgraded representing 1.5 m<sup>2</sup> or 10% of the total touch surfaces in the room.*

*Evidence for reduced contamination is also available from a study in an open ward and single room, standard care situation (Karpanen 2011). In this clinical trial, fourteen hot spot touch surfaces were identified and upgraded; contamination reduction on these components was similar to that observed by Schmidt. To date there is no data of commensurate reduction in HCAI rates in these environments as early trials were not designed to evaluate this.*

*In order to allow you to explore the potential for copper in these other care configurations and environments, this model allows for single/ensuite rooms and ward situations to be assessed. It includes baseline cost data for key copper components and these can be individually selected according to your judgement and local environmental monitoring data. Whilst the model defaults to HCAI reduction data for the ICU, it allows you to enter an effectiveness value based upon your*

Green background cells

Red text

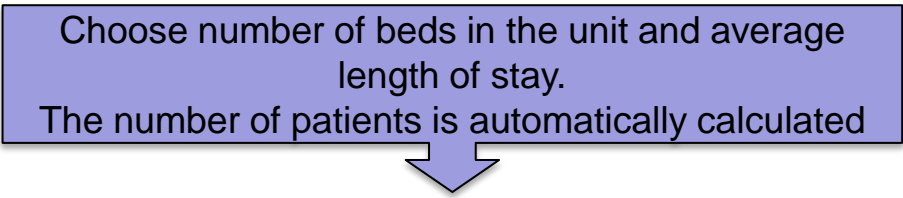
Comments

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Input any expected change in patient numbers

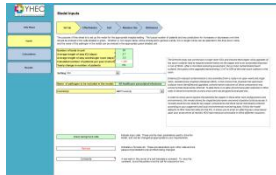
The Salgado (2013) study was carried out in single room Intensive Care Units (ICUs) and showed that the use of single room ICUs led to reduced contamination on the copper surfaces. In a microbiological sampling assessment, the six upgraded representing 1.5 m<sup>2</sup> or 10% of the total area showed a reduction in HCAI from a study in an open ward and single room ICU. In this clinical trial, fourteen hot spot touch surfaces were identified and upgraded; contamination reduction on these components was 40%. This reduction was not statistically significant, but it was of commensurate reduction in HCAI to evaluate this.

In the model, you can select the ICU configurations and environmental conditions to be assessed. It includes baseline cost data for key copper components and these can be individually selected according to your judgement and local environmental monitoring data. Whilst the model defaults to HCAI reduction data for the ICU, it allows you to enter an effectiveness value based upon your own data.

### Select currency to be used

Infection to be included in the model:	All Healthcare Associated Infections
Currency:	GBP Pounds (£)

# Set-Up (3)



Number of beds in unit	20
Average length of stay in ICU (days)	5.7
Average length of stay ward/single room (days)	3.0
Calculated number of patients per year (Cohort)	1,200
Yearly change in number of patients	0%

Setting: ICU

Infection to be included in the model: All Healthcare Associated Infections

Currency: GBP Pounds (£)

*The Salgado (2013) study was carried out in single room Intensive Care Units (ICUs) and showed that copper alloy upgrades of key touch surfaces lead to reduced contamination on the copper and to an associated reduction in risk of HCAs. After a microbial sampling assessment, the six most contaminated touch surfaces (hot spots) were upgraded representing 1.5 m<sup>2</sup> or 10% of the total touch surfaces in the room.*

*Evidence for reduced contamination is also available from a study in an open ward and single room, standard surfaces were similar rates*

*In order to use the model in environments, includes base... according to your judgement and local environmental monitoring data. Whilst the model defaults to HCAI reduction data for the ICU, it allows you to enter an effectiveness value based upon your*


You can enter a specific microbe or infection type by over-typing in the green box

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# Effectiveness





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Title Sheet

Inputs

Calculations

Results

## Model Inputs

Set-Up
Effectiveness
Cost
Resource Use
References

The following infection rates are taken from published papers. To change to hospital specific rates, the rate and the time period in months over which the infections occurred should be entered into the appropriate cells and 'user defined data' should be selected in the drop down menu. A new monthly rate will automatically be calculated.

				Monthly infection rate								
				ICU			Ward			Single room		
				Rate	Time period (months)	Monthly rate	Rate	Time period (months)	Monthly rate	Rate	Time period (months)	Monthly rate
All healthcare associated infections	Cairns 2010			27.100%	12	0.0226						
Cairns et al. 2010				27.100%	12	0.0226						
Health Protection Agency 2011				23.400%	12	0.0195						
User defined data												

Reduction in infections\*

20.0%

\*Rates from Salgado (2013) showed a reduction of 58.1% for the copper arm versus non-copper arm. A conservative assumption of a reduction of 20% has been used as default in the model.

Green background cells

Indicate input cells. These are the main parameters used to drive the model, and can be changed as appropriate to your requirements.

Red text

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Comments

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# Effectiveness (2)





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Title Sheet

Inputs

Calculations

Results

## Model Inputs

Set-Up

Effectiveness

Cost

Resource Use

References

The following infection rates are taken from published papers. To change to hospital specific rates, the rate and the time period in months over which the infections occurred should be entered into the appropriate cells and 'user defined data' should be selected in the drop down menu. A new monthly rate will automatically be calculated.

	Monthly infection rate		
	ICU		Ward
	Rate	Time period (months)	Single room
All healthcare associated infections	Cairns 2010	27.100%	
Cairns <i>et al.</i> 2010		27.100%	
Health Protection Agency 2011		23.400%	
User defined data			

Reduction in infections\*

\*Rates from Salgado (2013) showed a reduction of 58.1% for the copper arm versus non-copper arm. A conservative assumption of a reduction of 20% has been used as default in the model.

Green background cells

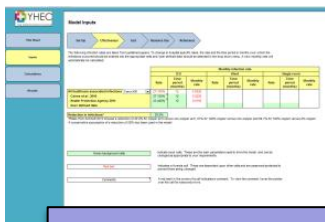
Red text

Comments

Default data has been inserted following our extensive literature review and use of expert opinion. These are listed in the **References** page

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# Effectiveness (3)



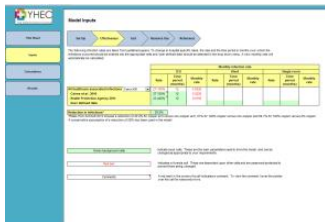
Infection rates for **all HCAs in an ICU** setting are entered by default. Local data for ICU may be entered in the appropriate (green) cells.

		Monthly infection rate								
		ICU			Ward			Single room		
		Rate	Time period (months)	Monthly rate	Rate	Time period (months)	Monthly rate	Rate	Time period (months)	Monthly rate
All healthcare associated infections	Cairns 2010	27.100%	12	The drop down box can be used to choose either of the referenced data						
Cairns <i>et al.</i> 2010	Cairns 2010	27.100%								
Health Protection Agency 2011	HPA 2011	23.400%								
User defined data	User defined data									
Reduction in infections*		20.0%								

\*Rates from Salgado (2013) showed a reduction of 58.1% for the copper arm versus non-copper arm. A conservative assumption of a reduction of 20% has been used as default in the model.

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# Effectiveness (4)



		Monthly infection rate											
		ICU				Ward				Single room			
		Rate	TI	CI	SI	Rate	TI	CI	SI	Rate	TI	CI	SI
All healthcare associated infections	Cairns 2010	27.1				27.1				27.1			
	Cairns et al. 2010	27.100%				27.100%				27.100%			
	Health Protection Agency 2011	23.400%				23.400%				23.400%			
	User defined data	12				0.01							
Reduction in infections*		20.0%											

To use local data choose “user defined data” from the drop down

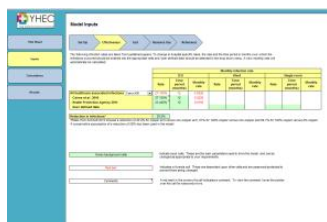
Remember to fill in the months

A conservative assumption of a reduction of 20% is used as default in the model

\*Rates from Salgado (2013) showed a reduction of 58.1% for the copper arm versus non-copper arm. A conservative assumption of a reduction of 20% has been used as default in the model.

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# Effectiveness (5)



If you chose **Ward** or **Single Room** in the Set Up page enter data here in the green cells.

Monthly infection rate								
ICU			Ward			Single room		
Rate	Time period (months)	Monthly rate	Rate	Time period (months)	Monthly rate	Rate	Time period (months)	Monthly rate
0.000%	0	#DIV/0!	6.200%	12	0.0052			
27.100%	12	0.0226						
23.400%	12	0.0195						
			6.200%	12				

Choose **User defined data** from the drop down

Remember to fill in the months

Reduction in infections\* 20.0%


\*Rates from Salgado (2013) showed a reduction of 58.1% for the copper versus non-copper arm. A conservative assumption of a reduction of 20% has been used as default in the model.

A reduction of 20% is used as default in the model; you can alter this

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# Costs





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## Model Inputs

Set-Up
Effectiveness
Cost
Resource Use
References

This sheet is used to calculate the cost of an infection and the copper intervention. Costs included are the unit cost for one additional day the patient will stay in hospital due to acquiring an infection and further GP and outpatient costs after leaving hospital. (The number of excess hospital days, GP visits and outpatient visits that a patient may need are entered in the **Resource Use** sheet.). The default costs for equipment are for those used in the Salgado study. Optional copper items can also be added but it should be noted that this only adds to the cost of the copper intervention as the model is unable to take into account any additional benefit given the clinical evidence currently available.

	Unit cost
Cost of an additional day in hospital due to infection	£1,000
Visit to general practitioner	£0
Outpatient	£0

Cost of equipment

	Unit Cost		Number required	Total cost	
	Copper	Baseline		Copper	Baseline
Bed rails sets	£4,000	£3,000	20	£80,000	£60,000
Overbed tray table	£300	£150	20	£6,000	£3,000
Chair	£350	£250	20	£7,000	£5,000
Call button	£50	£20	20	£1,000	£400
Data device	£250	£100	20	£5,000	£2,000
IV pole	£300	£200	20	£6,000	£4,000
<b>Optional copper items</b>					
Grab rails <input type="checkbox"/>	£10	£10			
Lever handle set <input type="checkbox"/>	£50	£50			
Push plates set <input type="checkbox"/>	£30	£30			
Cistern handle <input type="checkbox"/>	£31	£31			
Tap set <input type="checkbox"/>	£350	£350			
Other 1 <input type="checkbox"/>					
Other 2 <input type="checkbox"/>					
Other 3 <input type="checkbox"/>					
Other 4 <input type="checkbox"/>					
Other 5 <input type="checkbox"/>					
Other 6 <input type="checkbox"/>					

Indicates input cells. These are the main parameters used to drive the model, and can be changed as appropriate to your requirements.

Indicates a formula cell. These are dependent upon other cells and are password protected to prevent them being changed.

A red mark in the corner of a cell indicates a comment. To view the comment, hover the pointer over the cell for a second or two.

Further copper options. To include in the model enter the price for copper, baseline cost and number required

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# Costs (2)



Unit costs for the treatment of infections are entered here.  
The default is £1,000 for an additional day in hospital

Optional costs for visits to a **GP** and **Outpatients** can also be included

Unit cost
Additional day in hospital due to infection
practitioner
equipment

	Unit Cost		Number required	Total cost	
	Copper	Baseline		Copper	Baseline
Bed rails sets	£4,000	£3,000	20	£80,000	£60,000
Overbed tray table	£300	£150	20	£6,000	£3,000
Chair	£350	£250	20	£7,000	£5,000
Call button	£50	£20	20	£1,000	£400
Data device	£250	£100	20	£5,000	£2,000
IV pole	£300	£200	20	£6,000	£4,000
Optional copper items					
Grab rails	<input type="checkbox"/>	£10			
Lever handle set	<input type="checkbox"/>	£50			
Push plates set	<input type="checkbox"/>	£30			
Cistern handle	<input type="checkbox"/>	£31			
Tap set	<input type="checkbox"/>	£350			
Other 1	<input type="checkbox"/>				
Other 2	<input type="checkbox"/>				
Other 3	<input type="checkbox"/>				
Other 4	<input type="checkbox"/>				
Other 5	<input type="checkbox"/>				
Other 6	<input type="checkbox"/>				

Tick to include specific equipment

You can enter your own text here


Further copper options. To include in the model enter the price for copper, baseline cost and number required

Cost of equipment is entered here. Additional copper items are included when the **number required** cells are completed

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# Resource use





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Title Sheet

Inputs

Calculations

Results

## Model Inputs

Set-Up

Effectiveness

Cost

Resource Use

References

This sheet is used to enter the resources a patient will use as a result of acquiring an infection. These are extra days in hospital and subsequent visits to a GP and/or an outpatient visit. These resources are assumptions and should be changed to reflect local care pathways

Resource use for an event

	Extra days in hospital	General practitioner visit	Follow up outpatient visit
All healthcare associated infections	6	1	1

Green background cells

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Red text

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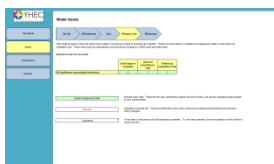
Comments

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# Resource use (2)

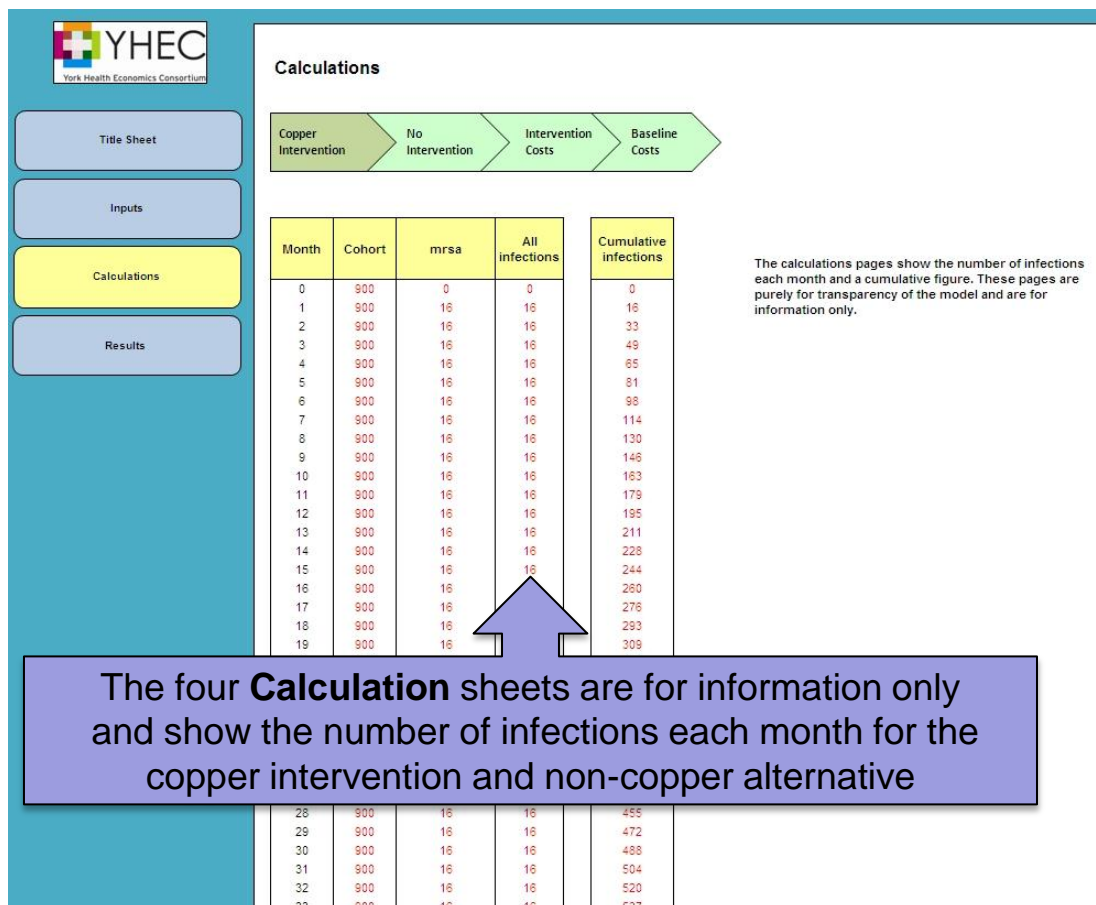


If no cost data is entered in **Costs** page then these will not influence the output

	Extra days in hospital	General practitioner visit	Follow up outpatient visit
All healthcare associated infections	6	1	1

The **Resource Use** inputs for an infected patient are assumptions and can be changed to reflect local clinical pathways. i.e. it is assumed a patient has six extra days in hospital


# Calculations



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# Intervention Costs





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Title Sheet

Inputs

Calculations

Results

### Calculations

Copper Intervention

No Intervention

Intervention Costs

Baseline Costs


Month	Bed rails	Overbed tray table	Chair	Call button	Data device	IV pole	Other items	All Healthcare Associated Infections	Total (month)	Total (cumulative)
0	£80,000	£6,000	£7,000	£1,000	£5,000	£6,000	£0	£0	£105,000	£105,000
1	£0	£0	£0	£0	£0	£0	£0	£130,080	£130,080	£235,080
2	£0	£0	£0	£0	£0	£0	£0	£130,080	£130,080	£365,160
3	£0	£0	£0	£0	£0	£0	£0	£130,080	£130,080	£495,240
4	£0	£0	£0	£0	£0	£0	£0	£130,080	£130,080	£625,320
5	£0	£0	£0	£0	£0	£0	£0	£130,080	£130,080	£755,400
6	£0	£0	£0	£0	£0	£0	£0	£130,080	£130,080	£885,480
7	£0	£0	£0	£0	£0	£0	£0	£130,080	£130,080	£1,015,560
8	£0	£0	£0	£0	£0	£0	£0	£130,080	£130,080	£1,145,640
9	£0	£0	£0	£0	£0	£0	£0	£130,080	£130,080	£1,275,720
10	£0	£0	£0	£0	£0	£0	£0	£130,080	£130,080	£1,405,800
11	£0	£0	£0	£0	£0	£0	£0	£130,080	£130,080	£1,535,880
12	£0	£0	£0	£0	£0	£0	£0	£130,080	£130,080	£1,665,960
13	£0	£0	£0	£0	£0	£0	£0	£130,080	£130,080	£1,796,040
14	£0	£0	£0	£0	£0	£0	£0	£130,080	£130,080	£1,926,120
15	£0	£0	£0	£0	£0	£0	£0	£130,080	£130,080	£2,056,200
16	£0	£0	£0	£0	£0	£0	£0	£130,080	£130,080	£2,186,280
17	£0	£0	£0	£0	£0	£0	£0	£130,080	£130,080	£2,316,360
18	£0	£0	£0	£0	£0	£0	£0	£130,080	£130,080	£2,446,440
19	£0	£0	£0	£0	£0	£0	£0	£130,080	£130,080	£2,576,520
20	£0	£0	£0	£0	£0	£0	£0	£130,080	£130,080	£2,706,600
21	£0	£0	£0	£0	£0	£0	£0	£130,080	£130,080	£2,836,680

The cost calculations sheet simply multiplies the number of infections each month by the cost of each infection

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# Results





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Title Sheet

Inputs

Calculations

Results

Summary
Number of Infections
Cost Chart
Sensitivity Chart
Print results



**YHEC**

York Health Economics Consortium

An Economic Evaluation of the Use of Copper in Reducing the Rate of Healthcare Associated Infections in the UK.

The purpose of this model is to calculate the number and associated costs of Healthcare Associated Infections in different clinical settings and to evaluate the benefits of a copper intervention on key touch surfaces compared to non-copper items. It then calculates the Return on Investment (ROI) and indicates other tangible benefits.

### 5 year results

	Copper	Baseline	Incremental
Total cost (excluding cost of infections)*	£105,000	£74,400	£30,600
Number of infections	1,301	1,626	325
Cost per infection averted (excluding cost of infections)			£94.10
Total QALYS gained			116.42
Cost per QALY			£262.84
Cost of infections*	£7,804,800	£9,756,000	-£1,951,200
Total cost of intervention*	£7,909,800	£9,830,400	-£1,920,600
Cost per infection averted			Dominant

\*These are direct costs to the hospital (no GP costs or societal costs have been included in the model)

Number of bed days saved per year	390
Cost per bed day saved per year	£78.41

The number of bed days saved per year is 390, this would allow an increased capacity in the ICU by 68 beds with a typical length of stay of 5.7 days.

Return on investment	< 1 months
----------------------	------------

The cost of the copper upgrade is £105,000 compared to £74,400 for installation of non-copper items. There were 1,301 infections in the copper group over the period and 1,626 in the baseline. This results in a cost per infection averted of £94.10.

These results are based on the following scenario:

Number of beds per unit	20
Number of patients per year	1,200
Setting	ICU
Percentage reduction in infections	20.0%
Type of infection	All Healthcare Associated Infections

YHEC Model - HCAI Economic Evaluation 05APR2013.xlsm

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# Results (2)



The first table shows a summary of the results, showing total costs and number of infections for copper and baseline (non-copper environment)

## 5 year results

	Copper	Baseline	Incremental
Total cost (excluding cost of infections)*	£105,000	£74,400	£30,600
Number of infections	1,301	1,626	325
Cost per infection averted (excluding cost of infections)			£94.10
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Cost per infection averted			Dominant

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Cost per bed day saved per year	£78.41

The number of bed days saved per year is 390, this would allow an increased capacity in the ICU by 68 beds with a typical length of stay of 5.7 days.

Return on investment	< 1 months
----------------------	------------

The cost of the copper upgrade is £105,000 compared to £74,400 for installation of non-copper items. There were 1,301 infections in the copper group over the period and 1,626 in the baseline. Results in a cost per infection averted of £94.10.

Time for the **Return on Investment (ROI)** is shown here

A **Dominant** result means copper is both cheaper and more effective

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# Results (3)



## 5 year results

	Copper	Baseline	Incremental
Total cost (excluding cost of infections)*	£105,000	£74,400	£30,600
Number of infections	1,301	1,626	325
Cost per infection averted (excluding cost of infections)			£94.10
Total QALYS gained			116.42
Cost per QALY			£262.84
Cost of infections*	£7,804,800	£9,756,000	-£1,951,200
Total cost of intervention*	£7,909,800	£9,830,400	-£1,920,600
Cost per infection averted			Dominant

\*These are direct costs to the hospital (no GP costs or societal costs have been included in the model)

Number of bed days saved per year	390
Cost per bed day saved per year	£78.41

The number of bed days saved per year is 390, this would allow an increased capacity in the ICU by 68 beds with a typical length of stay of 5.7 days.

Return on investment	£	0.18
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The cost of the intervention is £7,909,800. The cost of the baseline is £9,830,400. The incremental cost is -£1,920,600. The incremental benefit is 116.42 QALYs. The incremental cost per QALY is £262.84. The incremental number of infections averted is 325. The incremental number of bed days saved is 390. The incremental cost per bed day saved is £78.41. The incremental return on investment is 0.18.

Further analysis shows the cost per infection averted, number of bed days saved and QALYs gained

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# Results (4)



These results are based on the following scenario:

Number of beds per unit	20
Number of patients per year	1,200
Setting	ICU
Percentage reduction in infections	20.0%
Type of infection	All Healthcare Associated Infections

YHEC Model - Copper Intervention - Economic Evaluation 03APR2013.ICU x 20 beds .xism

This text shows selected inputs and scenario for the model


The file name is automatically printed for your reference

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# Results (5)






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- Title Sheet
- Inputs
- Calculations
- Results

Summary
Number of Infections
Cost Chart
Sensitivity Chart
Print results

**You can Print the results page by clicking here**



**YHEC**  
York Health Economics Consortium

An Economic Evaluation of the Use of Copper in Reducing the Rate of Healthcare Associated Infections in the UK.

The purpose of this model is to calculate the number and associated costs of Healthcare Associated Infections in different clinical settings and to evaluate the benefits of a copper intervention on key touch surfaces compared to non-copper items. It then calculates the Return on Investment (ROI) and indicates other tangible benefits.

**5 year results**

	Copper	Baseline	Incremental
Total cost (excluding cost of infections)*	£105,000	£74,400	£30,600
Number of infections	1,301	1,626	325
Cost per infection averted (excluding cost of infections)			£94.10
Total QALYS gained			116.42
Cost per QALY			£262.84
Cost of infections*	£7,804,800	£9,756,000	-£1,951,200
Total cost of intervention*	£7,909,800	£9,830,400	-£1,920,600
Cost per infection averted			Dominant

\*These are direct costs to the hospital (no GP costs or societal costs have been included in the model)

Number of bed days saved per year	390
Cost per bed day saved per year	£78.41

The number of bed days saved per year is 390, this would allow an increased capacity in the ICU by 68 beds with a typical length of stay of 5.7 days.

Return on investment	< 1 months
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The cost of the copper upgrade is £105,000 compared to £74,400 for installation of non-copper items. There were 1,301 infections in the copper group over the period and 1,626 in the baseline. This results in a cost per infection averted of £94.10.

These results are based on the following scenario:

Number of beds per unit	20
Number of patients per year	1,200
Setting	ICU
Percentage reduction in infections	20.0%
Type of infection	All Healthcare Associated Infections

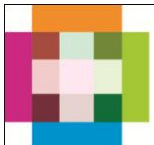
YHEC Model - HCAI Economic Evaluation 05APR2013.xlsm

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24

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INVESTORS  
IN PEOPLE



**YHEC**  
York Health Economics Consortium



# Discussion



- Readmission costs have not been considered although some workers report about 30% of patients who have been diagnosed with an HCAI are readmitted within 30 days with associated complications.
- ‘Opportunity costs’ accruing from beds being released have not been calculated but these might include more potential for elective surgery, reduced antibiotic use and staff availability
- Mortality has not been considered
- Bed blocking can lead to breaching of 4 hour transfer times = more fines.
- There are fines for missing targets for HCAI reductions.

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# Thank you

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