



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

## User Guide


Providing Consultancy &  
Research in Health Economics

THE UNIVERSITY *of York*



# The Model






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

Title Sheet

Inputs

Calculations

Results



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

of Healthcare Associated Infections in different surfaces compared to non-copper items. It benefits. Allocation costs (which would be similar) have screen to go to sections for model **Inputs**, these sections. It should be noted that the


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 <b>red mark</b> 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






York Health Economics Consortium

- Title Sheet
- Inputs
- Calculations
- Results

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




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. 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 time the main areas for users are the **Inputs** and **Calculations**.

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 a comment




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

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# The Model





Title Sheet


Inputs

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Results

Buttons used to navigate around the model

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



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.

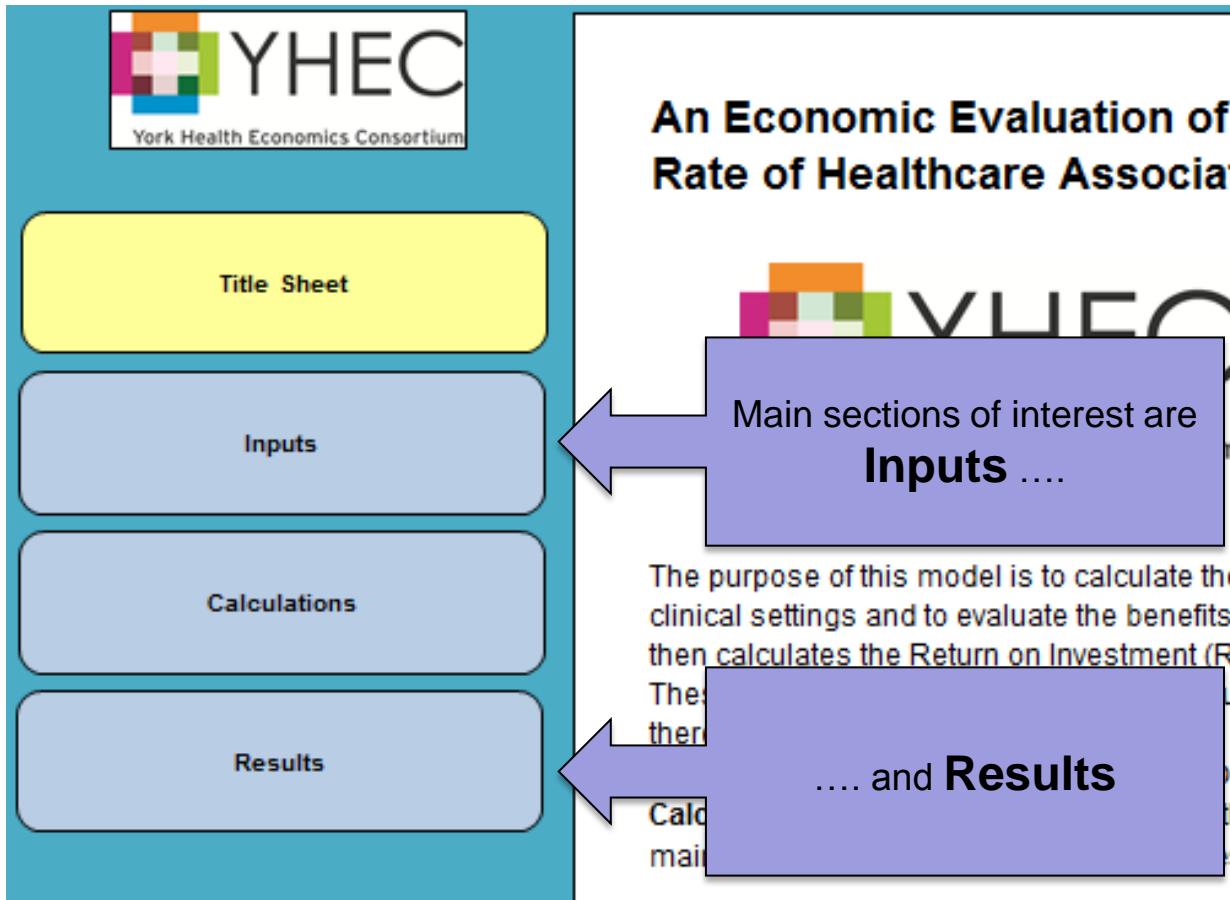
dependent upon other cells and are password protected.

ates a comment. To view the comment, hover for two.

Buttons will turn yellow when you click on them

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# The Model



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# Set-Up



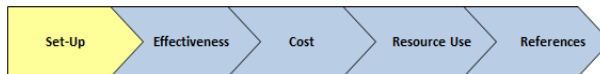
Title Sheet

Inputs

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## Model Inputs



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

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Red text

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Comments

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# Set-Up (2)



Choose number of beds in the unit and average length of stay.  
The number of patients is automatically calculated

Select setting for model in drop down

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%

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 implementation of a programme of interventions designed to reduce contamination on the copper surfaces of the ward led to reduced contamination on the copper surfaces. In a clinical trial, fourteen hot spot touch surfaces were identified and upgraded; contamination reduction on these components was 100%. This study also showed that the implementation of commensurate reduction in HCAI rates was achieved. The study was designed to evaluate this.*

Setting: ICU

All HCAIs by default

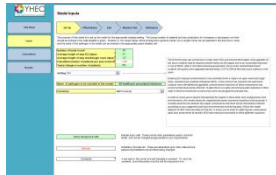
Infection to be included in the model: All Healthcare Associated Infections

Select currency to be used

Currency: GBP Pounds (£)

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# 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 here similar rates*

*In order to adapt the model to your specific environment, you can enter an effectiveness value 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

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### 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\*

\*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

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Red text

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Comments


Comments

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# Effectiveness (2)





York Health Economics Consortium

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### 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 et al. 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.

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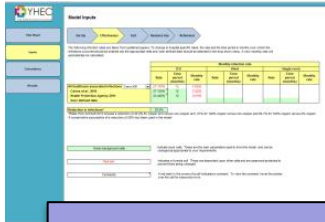
Comments

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.

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.

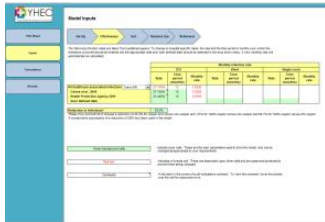
		Monthly infection rate								
		ICU			Ward			Single room		
		Rate	Time period (months)	Monthly rate	Rate	Time period (months)	Monthly rate	Rate	Time period (months)	Monthly rate
All healthcare associated infections Cairns et al. 2010 Health Protection Agency 2011 User defined data	Cairns 2010	27.100%	12							
	Cairns 2010	27.100%								
	HPA 2011	23.400%								
	User defined data									
Reduction in infections*		20.0%								

The **drop down box** can be used to choose either of the referenced data

\*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							
All healthcare associated infections	Cairns 2010	27.1%					
	Cairns et al. 2010	27.100%					
	Health Protection Agency 2011	23.400%	12	0.01			
	User defined data						
Reduction in infections*		20.0%					

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

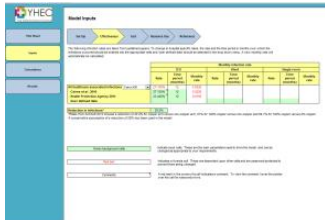
Remember to fill in the months

\*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.

A conservative assumption of a reduction of 20% is 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

- User defined data
- Cairns 2010
- HPA 2011
- User defined data

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





## Model Inputs

Set-Up
Effectiveness
Cost
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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"/>					

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

	Indicates input cells. These are the main parameters used to drive the model, and can be changed as appropriate to your requirements.
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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	£1,000
GP practitioner	£0
Outpatient practitioner	£0

	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			
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

# Resource use





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## Model Inputs

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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
<b>All healthcare associated infections</b>	6	1	1

Green background cells

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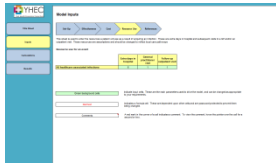
Comments

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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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### Calculations

Copper Intervention
No Intervention
Intervention Costs
Baseline Costs

Month	Cohort	mrsa	All infections	Cumulative infections
0	900	0	0	0
1	900	16	16	16
2	900	16	16	33
3	900	16	16	49
4	900	16	16	65
5	900	16	16	81
6	900	16	16	98
7	900	16	16	114
8	900	16	16	130
9	900	16	16	146
10	900	16	16	163
11	900	16	16	179
12	900	16	16	195
13	900	16	16	211
14	900	16	16	228
15	900	16	16	244
16	900	16	16	260
17	900	16	16	276
18	900	16	16	293
19	900	16	16	309
20	900	16	16	325
21	900	16	16	341
22	900	16	16	357
23	900	16	16	373
24	900	16	16	389
25	900	16	16	405
26	900	16	16	421
27	900	16	16	437
28	900	16	16	453
29	900	16	16	469
30	900	16	16	485
31	900	16	16	501
32	900	16	16	517
33	900	16	16	533


The calculations pages show the number of infections each month and a cumulative figure. These pages are purely for transparency of the model and are for information only.

The four **Calculation** sheets are for information only and show the number of infections each month for the copper intervention and non-copper alternative

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# Intervention Costs





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### 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





Summary → Number of Infections → Cost Chart → Sensitivity Chart → Print results



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**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			€262.64
Cost of infections*	€7,804,800	€9,756,000	-€1,951,200
Total cost of intervention*	€7,809,800	€9,830,400	-€1,820,600
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

Title Sheet

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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
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
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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	2.7	1.7	1.0
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The... are 1,301 infections in...

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

This text shows selected inputs and scenario for the model


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

The file name is automatically printed for your reference

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# Results (5)






York Health Economics Consortium

- Title Sheet
- Inputs
- Calculations
- Results

Summary
Number of Infections
Cost Chart
Sensitivity Chart
Print results



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
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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

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

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# 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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