



***National Specialised Commissioning Team***

**Peritoneal Tumour Service**

**Report to March 31<sup>st</sup> 2011**



Mia Parkinson  
Lee Malcomson

We Care, We Discover, We Teach

**The Christie NHS Foundation Trust  
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## Introduction

2010 has been a year of developments and change. Referrals continue to increase particularly from the North West, Yorkshire and Humber and the West Midlands. This may be a reflection of increased awareness of the Manchester Service due to educational events, lectures and trainees and fellows who have worked with us and taken posts in these regions – spreading knowledge and stimulating referrals of appropriate cases. The number from Wales has also increased and this group continue to pose administrative difficulties to both Manchester and Basingstoke.

Although the proportion of patients undergoing surgery has remained in the order of 50% the number of complete and major cytoreductions as opposed to debulking procedures has increased dramatically (52 v 3 respectively). This is probably a reflection of earlier referrals leading to more operable disease and opportunities for more complete cytoreduction. One could consider this to be a major success of the national programme such that we are able to offer more patients potentially 'curative' surgery. Time and careful follow up will of course define this more accurately.

The re-designation process was an interesting exercise and hopefully has assisted the commissioning team in formatting their approach to other services. Thankfully we have been able to agree a five year contract which is extremely helpful for planning the infrastructure and workforce required to provide a robust service going forward. As we have agreed an increase in workload for the coming years we are putting in place those elements necessary to deliver.

Inevitably some changes are taking place. We are reorganising administration of the service as sadly we are losing Mia Parkinson who has been central to developing and maintaining the systems in place to offer the patients not only a highly efficient service but one that empathises and supports patients and their families. Mia has tirelessly championed the patients and she will be hugely missed. However we hope to continue with the standards that have been set: Peter Crichton will take on some of the managerial tasks, Lee Malcomson will manage the database, Rebecca Halstead has a substantive post as our Specialist nurse with support from Senior Nurse Clinician Anne Usansky. For the last six months we have been fortunate to have Shelagh McCloud as our Senior Fellow: her enthusiasm and energy has been infectious and we wish her well in her Consultant post in Derby – no doubt this will result in even more referrals from the Midlands in the next year or two!

We are now seeing patients reach greater than five year survival and follow up following treatment and hence we need to offer a different approach to follow up: we intend to provide a structured telephone clinic to minimise the disruption and travel for patients but continue to offer support and maintain a robust database of clinical outcomes and survivorship.

The research programme has been boosted by \$50,000 grant from NORD matched with a grant from The Christie Charitable fund and from patient donations to the Peritoneal tumour research fund. In total £107,000 has been allocated to the project, Mr Alan Roberts has been appointed as research assistant to undertake laboratory studies to immortalise pseudomyxoma cells and determine the genetic profile to open up the potential for therapeutic interventions in future.

The team has continued to engage in educational events contributing to the International Workshop on Peritoneal Surface Malignancy in Upsalla with invited lectures, presentations and posters, presentation to the Overseas meeting of the RSM in Krakow, and to The Royal Jordanian Meeting in Amman. Closer to home presentations have been given to the North West, Liverpool and North Wales regional GI meeting and to the Leeds colorectal group. We have had visits from Dundee and Wolverhampton to observe our practice.

The next year will offer a number of challenges but we have every expectation that the team will continue to deliver quality and improved outcomes.

**Miss Sarah O'Dwyer**

**Consultant Surgeon**

March 2011

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## Staff

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## Service Development

Miss Shelagh McLeod joined the team as Senior Clinical Fellow in October 2010. Mr Euan McLaughlin joined the team as Surgical Registrar and Mr James McDonald joined as Clinical Fellow in August 2010.

Mia Parkinson left the service on March 31<sup>st</sup> 2011. The division has undergone a restructuring exercise and rather than take up a new role within the revised structure Mia chose to take voluntary redundancy.

Nadene Blakeman has joined the team as Assistant Service Manager in post from April 2011. Nadene was previously a Deputy Directorate Manager in an acute trust and has a clinical background primarily in theatres.

## Finance

The total funding received for the Pseudomyxoma Peritonei Service for 2010 - 2011 was £4,204,409. This is relating to 44 procedures, however a 45<sup>th</sup> procedure was carried out and therefore an additional £51,533 will be received as part of the final out-turn adjustment.

## Research and Academic Activities

A \$50,000 grant was awarded by the National Organization for Rare Disorders (NORD) to in part support the project: Establishing Methods for Evaluating Anti-tumour Therapies for Treatment of Pseudomyxoma Peritonei Using Gene Profiles and Immortalized Cells. This was only one of two internationally awarded projects.

Quality of life questionnaires continue to be sent to patients who have undergone cytoreduction and HIPEC on a 3, 6 and then 12 monthly basis. We have 853 completed questionnaires from patients. Analysis of this data is planned for 2011/12.

The morbidity and mortality audit is on-going showing a post operative mortality rate of 0% at 30 days with a 6.7% major morbidity rate.

## Publications (Posters)

The Prognostic Value of the Peritoneal Cancer Index (PCI) in Patients with Pseudomyxoma Peritonei Treated by Major Surgery - *Andrew G Renehan, Nicola Warburton, Peter Crichton, Mia Parkinson, Paul Fulford, Malcolm S Wilson, Sarah T O'Dwyer*

Patterns of Cytokeratins (CK)20, CK7 and CDX2 Immunohistochemical Staining in Pseudomyxoma Peritonei of Appendiceal Origin – *Patrick Hayle (medical student), Lee Malcomson, Bipasha Chakrabarti, Andrew G Renehan, Sarah T O'Dwyer, Malcolm S Wilson*

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## Presentations

ACPGBI meeting, Bournemouth - Prognostic factors in Pseudomyxoma Peritonei of Appendiceal Origin - *Andrew G Renehan, Malcolm S Wilson*

7<sup>th</sup> Workshop on Peritoneal Surface Malignancies, Uppsala, Sweden - Evaluating the performance characteristics of pre-operative CT versus intra-operative outcome in PMP – *Andrew G Renehan, Rohit Kochhar.*

7<sup>th</sup> Workshop on Peritoneal Surface Malignancies, Uppsala, Sweden – Management of Pseudomyxoma Peritonei: Two Stage Procedures? Place for Debulking? - *Sarah T O'Dwyer*

Sarah T O'Dwyer also presented to the North West Regional Annual MDT meetings in regards to the management of PMP and Colorectal Peritoneal Carcinomatosis.

## PPI

The patient information DVD is complete and is undergoing distribution. This was funded non-recurrently by NCG as part of the QIDIS (Quality Improvement Scheme).

Patients and their relatives continue to raise money to fund research into pseudomyxoma and support for patients and carers. There have been fancy dress balls, sponsored walks and a number of patients have run full and half marathons. One group walked up Snowdon and raised money to be shared between Basingstoke and The Christie.

The patient forum continues to develop and there have been over 9,900 posts in 684 topics over 4 forums. The current number of forum members is 267.

The Christie pseudomyxoma webpage is in the top 5 search results on both Google and Yahoo.

The service regularly receives thank-you cards and letters from patients and their relatives.

## Complaints

There have been no complaints made to the service this year

## Miscellaneous

A joint meeting with the team from Basingstoke took place on July 23<sup>rd</sup>. Both teams found the meeting beneficial and it has been agreed that a further meeting will be arranged for 2011.

The service underwent the Renewal of Designation process this year and renewal for 5 further years has passed the AGNSS board and is now awaiting Ministerial sign-off.

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## Activity

Table 1a

	06-07	07-08	08-09	09-10	10-11
Q30 - NORTH EAST	6	4	7	8	3
Q31 - NORTH WEST	40	30	56	57	45
Q32 - YORKSHIRE & THE HUMBER	7	16	16	17	18
Q33 - EAST MIDLANDS	9	4	8	12	6
Q34 - WEST MIDLANDS	0	5	5	13	9
Q35 - EAST OF ENGLAND	0	0	1	0	0
Q36 - LONDON	0	0	0	1	0
Q37 - SOUTH EAST COAST	0	0	1	0	1
Q38 - SOUTH CENTRAL	3	2	0	0	0
Q39 - SOUTH WEST	0	2	2	2	1
ENGLAND - NOT KNOWN	0	0	0	0	0
W01 - WALES	2	3	4	2	8
NORTHERN IRELAND	0	1	4	2	2
SCOTLAND	2	2	3	6	6
OTHER GB	0	0	0	0	0
OTHER	0	0	1	0	0
<b>TOTAL</b>	<b>69</b>	<b>69</b>	<b>108</b>	<b>120</b>	<b>99</b>

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**Table 1b**

<b>County</b>	<b>06-07</b>	<b>07-08</b>	<b>08-09</b>	<b>09-10</b>	<b>10-11</b>
Bedfordshire	0	0	1	0	0
Berkshire	0	1	0	0	0
Birmingham	1	4	1	3	6
Bristol	0	1	0	0	0
Cambridgeshire	1	1	0	2	0
Cheshire	14	12	23	23	14
Cleveland	0	0	5	4	0
Cornwall	0	0	1	0	0
County Durham	3	2	1	4	2
Cumbria	5	1	3	2	2
Derbyshire	0	0	0	2	1
Devon	0	1	1	2	2
Essex	1	0	0	0	0
Greater Manchester	8	7	22	22	20
Hereford and Worcester	0	0	1	1	0
Hertfordshire	0	1	0	0	0
Kent	1	0	1	0	0
Lancashire	9	9	10	10	4
Leicestershire	0	0	1	2	1
Lincolnshire	0	1	2	0	0
London	0	0	0	1	0
Merseyside	0	4	1	2	3
Nottingham	1	2	3	5	3
Shrewsbury	0	0	0	1	0
Shropshire	4	1	0	5	3
Staffordshire	1	0	0	2	0
Sussex	0	0	0	0	1
Tyne and Wear	4	1	1	0	1
West Midlands	2	0	2	1	0
Yorkshire	10	14	16	16	20
Northern Ireland	0	1	4	2	2
Scotland	2	2	3	6	6
Wales	2	3	4	2	8
Other	0	0	1	0	0
<b>Total</b>	<b>69</b>	<b>69</b>	<b>108</b>	<b>120</b>	<b>99</b>

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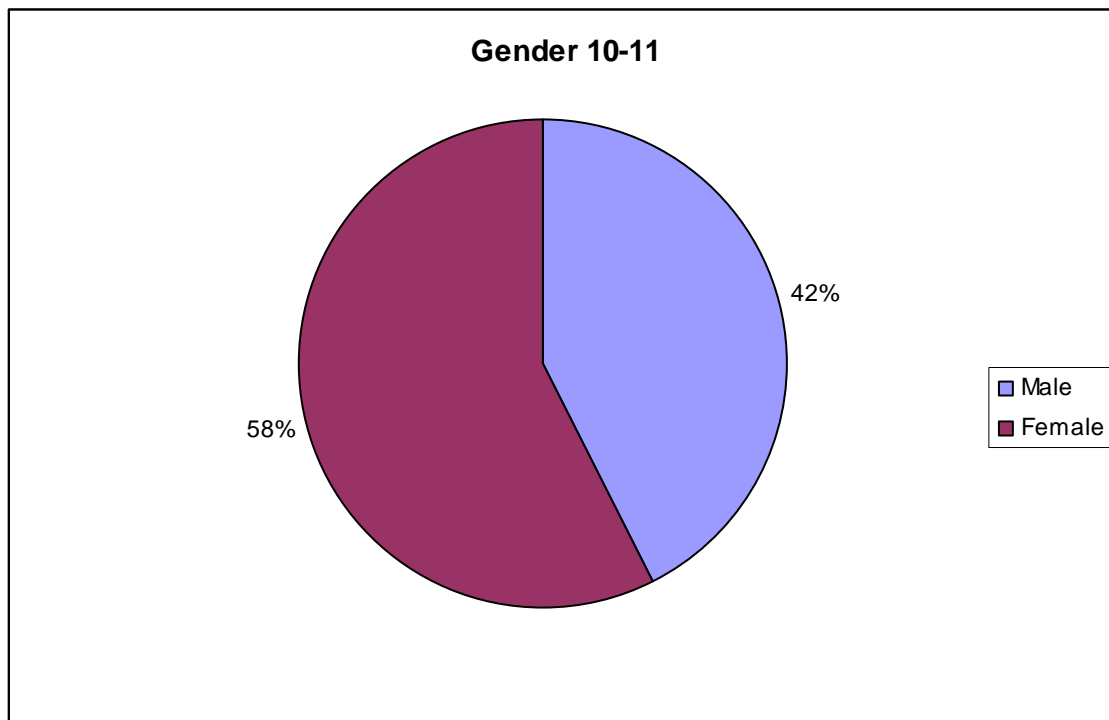
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**Table 2**

<b>Age</b>					
	<b>06-07</b>	<b>07-08</b>	<b>08-09</b>	<b>09-10</b>	<b>10-11</b>
<b>Mean - Male:</b>	57	52	63	57	55
<b>Mean - Female:</b>	57	54	53	57	61
<b>Range:</b>	20 - 88	23 - 82	21 - 89	24-95	23-92
<b>N =</b>	69	69	108	120	99

**Table 3**

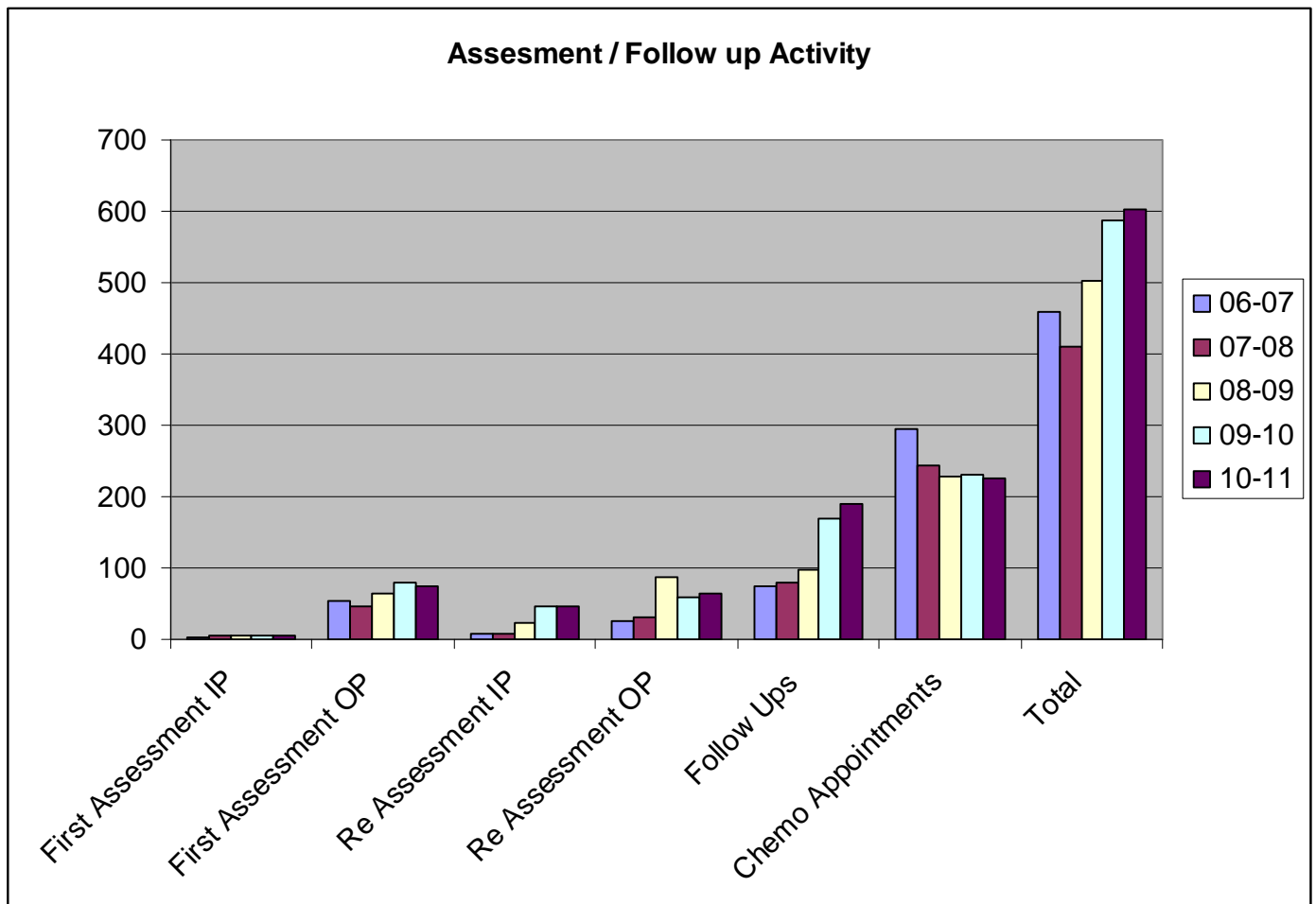
<b>Gender</b>					
	<b>06-07</b>	<b>07-08</b>	<b>08-09</b>	<b>09-10</b>	<b>10-11</b>
<b>Male</b>	30	24	39	43	42
<b>Female</b>	39	45	69	77	57
<b>Total</b>	<b>69</b>	<b>69</b>	<b>108</b>	<b>120</b>	<b>99</b>



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**Table 4**

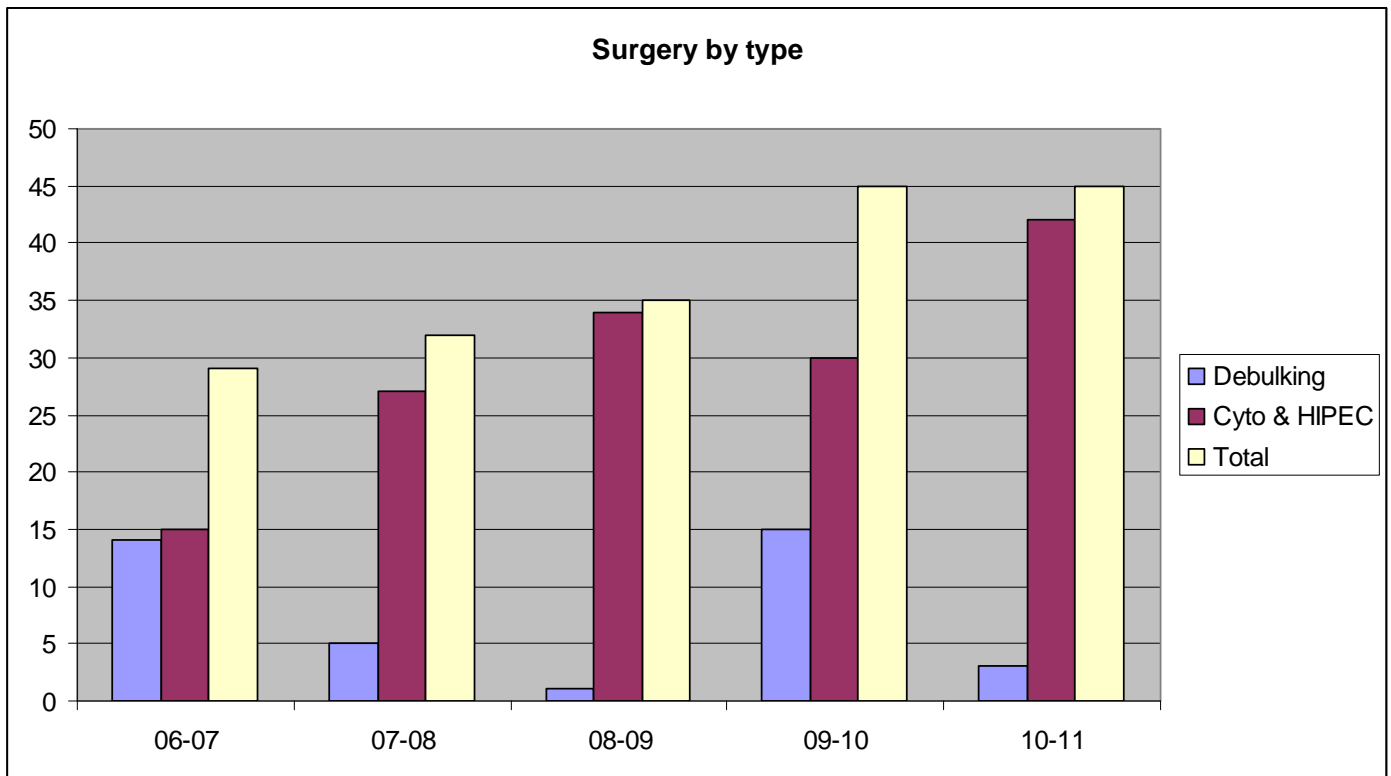


	<b>06-07</b>	<b>07-08</b>	<b>08-09</b>	<b>09-10</b>	<b>10-11</b>
<b>First Assessment IP</b>	2	6	6	4	4
<b>First Assessment OP</b>	53	45	63	79	75
<b>Re Assessment IP</b>	7	7	22	46	45
<b>Re Assessment OP</b>	26	31	87	59	63
<b>Follow Ups</b>	74	79	97	169	189
<b>Chemo Appointments</b>	296	243	228	231	226
<b>Total</b>	<b>458</b>	<b>411</b>	<b>503</b>	<b>588</b>	<b>602</b>

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**Table 5**



	06-07	07-08	08-09	09-10	10-11
<b>Debulking</b>	14	5	1	15	3
<b>Cytoreduction &amp; HIPEC</b>	15	27	34	30	42
<b>Total</b>	<b>29</b>	<b>32</b>	<b>35</b>	<b>45</b>	<b>45</b>

**Table 6**

Operation time								
	07-08		08-09		09-10		10-11	
	Cyto & HIPEC n = 27	Major Debulk n = 5	Cyto & HIPEC n = 34	Major Debulk n = 1	Cyto & HIPEC n = 30	Major Debulk n = 15	Cyto & HIPEC n = 42	Major Debulk n = 3
<b>Mean</b>	8.1	2.7	8.49	3.27	8.61	3.99	7.98	2.46
<b>Median</b>	8.1	2.7	8.51	3.27	8.25	3.83	7.37	2.32
<b>Range</b>	3.9-10.8	1.75-4	4.17-10.7	3.27	4.17-12.55	2 - 7	4.15 – 13	2.28-2.78

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**Table 7**

Breakdown of hospital stay									
	08-09			09-10			10-11		
	Level 3 Days	Level 2 Days	Ward Days	Level 3 Days	Level 2 Days	Ward Days	Level 3 Days	Level 2 Days	Ward Days
<b>Mean</b>	0	3	11	0	2	10	0	2.3	8.2
<b>Median</b>	0	3	9	0	2	9	0	2	8
<b>Range</b>	0 - 20	1 - 8	6 - 20	0	0-6	5-21	0	0-4	4-15

**Table 8**

<b>Mortality</b>	<b>07 - 08</b>	<b>08 - 09</b>	<b>09-10</b>	<b>10-11</b>
30 Days Post Op	0	0	0	0

<b>Major Surgical Morbidity*</b>	<b>07 - 08</b>	<b>08 - 09</b>	<b>09-10</b>	<b>10-11</b>
Bleeding requiring surgical exploration or more than 5 units of blood in 24 hours	0	1	0	0
Bleeding requiring intervention but not surgical intervention	0	0	0	0
Re-operation for any cause required	0	0	0	0
Infection	1	2	3	0
Thromboembolism	0	0	0	0
Neurological events that persist for at least 24 hrs	0	0	2	1
Renal dysfunction	1	0	0	0
Cardio dysfunction	0	0	0	0
Respiratory dysfunction	3	4	1	0
Other complications	6	1	1	2

<b>Infection Rates</b>	<b>07 - 08</b>	<b>08 - 09</b>	<b>09-10</b>	<b>10-11</b>
MRSA	0	0	0	1
Clostridium Difficile	0	0	0	0

\* Defined as Grade 3 or 4 NCI Common Terminology Criteria for Adverse Events (v4.0)

Intra-operative blood transfusion remains low for 10-11, with only 2 patients requiring any units (2 units per patient).

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**Table 9**

The 3- and 5-year tumour-related survival rates for all surgical cases were 78% and 56%.

The 5-year tumour-related survival rates by Peritoneal Cancer Index (PCI) categories were as follows: 93% for PCI scores 0 to 9; 85% for 10 to 19; 66% for 20 to 29; and 45% for 30 to 39.

