Surgical Management of patients with primary Colorectal Cancer over 12 years in the South Western Sydney Local Health District public hospitals

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Background
The South Western Sydney Local Health District (SWSLHD) is one of the most populous areas in NSW providing healthcare to over 819,000 people.

The Public Hospitals in the SWSLHD are:
- Bankstown
- Bexley
- Camden
- Campbelltown
- Fairfield
- Liverpool

In 1997, the South Western Sydney Colorectal Tumour Group established a database to collect information on patients with colorectal cancer that were treated in the area.

In 2005, a Clinical Cancer Registry (ClinCR) was established in the SWSLHD with funding from the Cancer Institute NSW.

When the ClinCR was formed the CRC database was incorporated into the ClinCR and now has over 12 years of CRC data.

ClinCR collects a minimum data set for each new cancer that is diagnosed and/or treated within the SWSLHD public facilities. A CRC database extension for each new CRC case is also collected for additional measures and indicators specific to the tumour stream.

Data collected between 1997 and 2001 had been analysed and reported on by The South Western Sydney Colorectal Tumour group in 2005.

Method
A retrospective review of the SWSLHD ClinCR was performed for the years 1997-2008.

- 3251 new cases of CRC were identified.
- 616 patients were excluded from this study as they did not have surgery.
- 2906 had surgery at one of the public hospitals in the SWSLHD and were the focus of this study.

- To identify changes, the first six years were compared to the subsequent 6 years:
  - Cases diagnosed from 1997 to 2002 (n = 1349)
  - Cases diagnosed from 2003 to 2008 (n = 1556)

- Variables examined are outlined in Table 1.

Result
The aim of this study was to identify any significant changes in the surgical management of CRC patients in the SWSLHD over a 12 year period, 1997 to 2008.

Demographics
- Gender
- Age at diagnosis
- Country of Birth

Tumour
- Date of diagnosis
- Primary site
- Stage

Surgery
- Operation type
- Method of surgery
- Chemotherapy
- Stoma created
- Regional lymph nodes examined
- Re-operation within 30 days

Preservation
- Symptoms or screening
- Length of stay
- Readmission within 30 days

Table 1: Variables examined in this study.

Table 2: Tumour and treatment data.

- Majority of surgery performed were colectomy (50%)
- 82% of all operations were elective and 17% were emergency surgery.

Change over 12 years
- High volume surgeons refer to those who performed ≥ 20 CRC resections per year and low volume is ≤ 20 CRC resections per year.
- From 2000 onwards.
- Overall, for all CRC, 1997 – 2002 period only had a length of stay (LOS) of 6 days compared to 28% in 2003-2008.
- 2003 – 2008 period, of those who had open operation 19% had a LOS 6 days, however for those who were operated on using a laparoscopic technique their LOS 57 days was 54%.

Conclusion
- In the second 6 year period, significantly more operations were performed by specialist colorectal surgeons, this is due to the formation of a CRC surgery unit.
- There has been a significant increase in the number of operations performed using a laparoscopic technique, which has lead to a decrease in LOS.
- Results have shown an increase in the number of regional lymph nodes examined as recommended in other studies.
- Further research will involve looking at the long-term cancer outcomes in these groups of patients.

References