

Colorectal Cancer Trends in Northern Ireland

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Objectives: to document colorectal cancer incidence and stage before the introduction of population based screening

Background

Colorectal Cancer (CRC) is the second most common cancer in the UK, including Northern Ireland. A CRC screening programme was introduced in N.Ireland in 2010. Predictions of the effect implementation of screening will be a rise in numbers of colorectal cancer and that those that more cancers are diagnosed at an earlier stage. Both of these will be an outcome measure for monitoring the success of the programme. A baseline of CRC data for both incidence and stage is therefore required.

The NICR carried out a detailed note review of colorectal cancers in 1996, 2001 and 2006 where complete staging information was collected. These data provide a benchmarking comparison with other years where complete note review was not possible.

Methods

Information on all the patients diagnosed with primary CRC between the years 1995-2009 were obtained from the Northern Ireland Cancer Registry (NICR). Any unstaged cases were staged using TNM and or Dukes systems based on the information from pathology reports and scanning information obtained from the Clinical Oncology Information System (COIS).

Crude and age standardised were calculated to show incidence trends and how these relate to sex, age, site of tumour and stage of tumour.

Survival Analysis was carried out over two time periods 1995-1999 and 2000-2004 with 5 year follow up and crude survival rates calculated.

Results

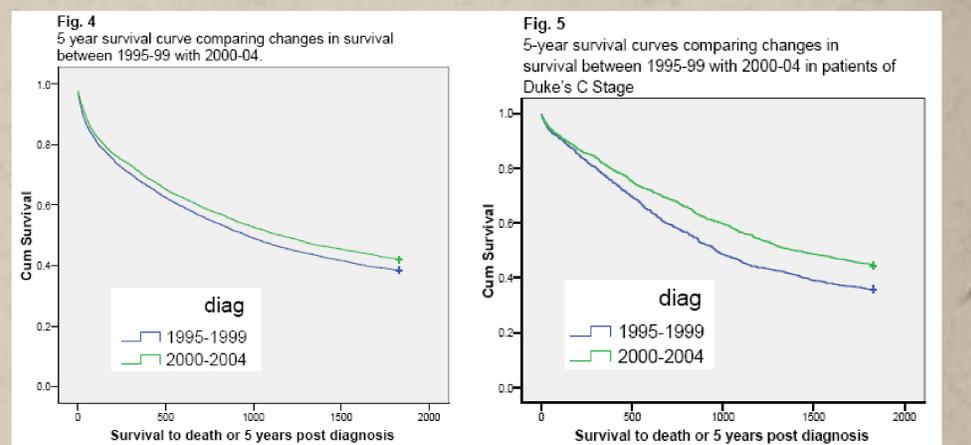
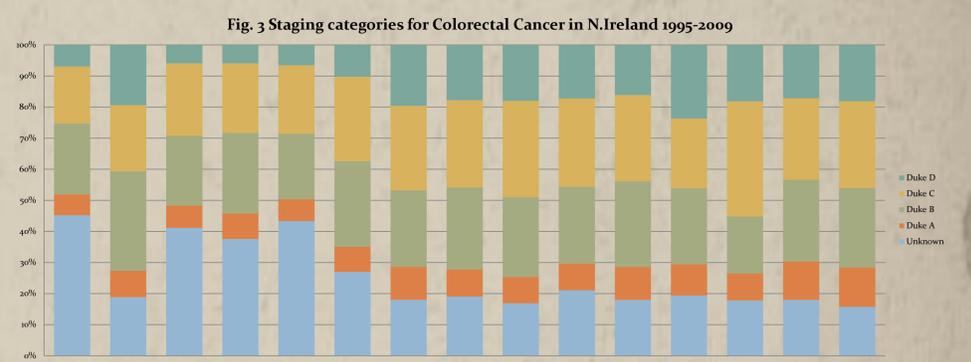
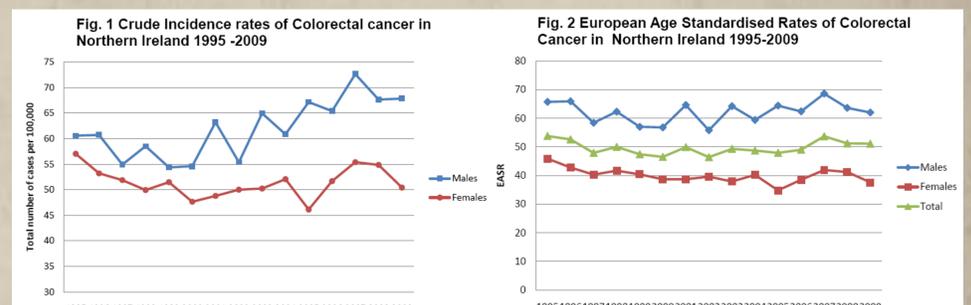
Annually there were 966 new cases on average of colorectal cancer diagnosed in NI. CRC incidence is rising at a rate of 0.8% per year (Fig.1). This is being driven by males where the increase is 1.7% per year. However correcting for age the European Age Standardised rates do not show the same rise in incidence (Fig.2).

The quantity staging information in those years that did not have a complete note review improved from 55% full TNM stage in 1995 to 85% in 2009 (Fig.3).

There was a significant improvement ($p < 0.5$) in the survival of patients diagnosed 2000-2004 than those diagnosed 1995-1999 (Fig.4). The most dramatic being those of Duke's C (Fig.5) although all stages showed some improvement (data not shown).

Acknowledgements

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Conclusions

- In Northern Ireland we are seeing a modest rise of 0.8% per year particularly in males. The numbers of colorectal cancers would be expected to rise further on the introduction of a population based screening programme during the prevalence round and then decrease.
- Staging improved using electronic systems available within NICR. After 2002 the level of staging is comparable to that for those years that had full note review.
- Survival improved. There was a significant increase in survival of patients diagnosed 2000-2004 vs. those diagnosed 1995-1999. The largest difference was seen in those of Duke's C stage.
- These data provide an excellent dataset with 85% of cases having a full TNM/Duke's stage with which to monitor the impact of colorectal cancer screening.

