

the European CanCER Organisation (ECCO) initiated a European audit; European Registration of Cancer Care (EURECCA). The aim of the present study is to assess treatment variety and short term outcome of rectal cancer patients in a combined population based dataset from Norway, Sweden, Denmark and the Netherlands.

**Methods:** Patients diagnosed with rectal cancer in 2008 and/or 2009 and underwent surgical treatment were selected from the Norwegian Colorectal Cancer Registry, the Swedish Colorectal Cancer Registration, the Danish Colorectal Cancer Database and the Dutch Surgical Colorectal Audit (n=6597), all population-based registration projects. Differences in age, gender, stage at diagnosis and the use of radio(chemo)therapy were compared between the countries using chi square tests. The use of radio(chemo)therapy was also compared according to stage within the countries. We further compared the 30-day mortality between the countries with a logistic regression model build to assess independent predictive factors.

**Results:** Overall, the Netherlands had a slightly younger population, no differences in gender distribution were found, and in the Norwegian data stage at diagnosis was more often unknown. The use of radio(chemo)therapy was the lowest in Denmark (24.9%), followed by Norway (50.3%), Sweden (60.7%), and the highest in the Netherlands (81.2%). The use of radio(chemo)therapy differed per stage for each country: in Denmark and the Netherlands patients with stage I, II, and III more often received radio(chemo)therapy; while in Norway stage IV and in Sweden for stage II, and III patients received more often radio(chemo)therapy. Results of the 30-day mortality analyses will be presented late breaking at the 2011 European Multidisciplinary Congress in Stockholm.

**Conclusion:** In western Europe, there are substantial differences between the use of radio(chemo)therapy. The first results of international comparisons in the population-based EURECCA-project may be the first step to find the right balance between under and over treatment.

6001

ORAL

# **Surgical Care in Low Rectal Cancer Patients Can Be Improved – an Analysis of 4084 Patients From the Dutch Surgical Colorectal Audit (DSCA)**

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**Background:** Oncological outcome for rectal cancer has improved considerably since the introduction of TME surgery. However, in patients with low rectal cancer requiring an abdominoperineal excision (APE) the number of irradical resections and tumour perforations remain high. A surgical audit was performed in order to evaluate the quality of (peri) operative care and to determine areas for improvement.

**Patients and Methods:** A pooled analysis was performed on 4084 patients that were included in the audit between 2009 and 2010.

**Results:** In 2010, 92 out of 94 hospitals in The Netherlands participated in the DSCA registration (98%) compared to 89% in 2009. When the data of 2009 is compared to that of the NKR (Dutch cancer registry) it is estimated that 85% of the patients have been entered. The average age at diagnosis was 67 yrs and 83% of the patients were ASA I or II. Preoperative staging with MRI as advised in the Dutch Guidelines was made in 89% of all elective patients and 88% was discussed in a multidisciplinary meeting. Of all patients with an indication for neoadjuvant treatment 87% did receive (chemo)radiotherapy. The distance of the tumour to the anal verge was <5 cm in 37% and 5–10 cm in 41% in which an APE was performed in 65% and 14% respectively. A large variation is found when the type of surgery (LAR vs. APE) is compared among hospitals. Even though the importance of circumferential resection margins ( $\geq 1$  mm) is widely accepted, these data were missing in 43% of the patients. Positive CRM were found in 12% and occurred more often in APE than LAR (16% vs. 10%). In T4 tumours receiving APE involved margins were found in 25% and 15% in tumours close to the anal verge (<5 cm). Adjuvant chemotherapy was administered to 15% of the patients which is conform the Dutch guideline recommendations.

**Conclusion:** The high registration rate clearly demonstrates that the Dutch surgical community is dedicated to improve the transparency and the quality of peri-operative care. High standard preoperative care is provided for most patients with low rectal cancer. However, there is a considerable variation among hospitals in the APE rates and pathology reports. The large number of missing CRM is worrying since it serves as a key measure of the quality of rectal surgery. The audit has identified areas for improvement in low rectal cancer patients in The Netherlands. In order to ameliorate surgical care standardized pathology reports and surgical workshops are required to decrease the number of irradical resections during APE.

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ORAL

# **Short Term Outcome After Neoadjuvant High Dose Rate Endorectal Brachytherapy or Short Course External Beam Radiotherapy in Resectable Rectal Cancer**

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**Background:** Total mesorectal excision (TME) together with preoperative radiotherapy has reduced the local recurrence rates after resection for rectal adenocarcinoma. However, preoperative radiotherapy increases the risk of long term and short term postoperative complications. The standard choice is preoperative external beam radiotherapy, but preoperative endorectal brachytherapy has been used as an alternate neoadjuvant treatment. The purpose of this study was to compare immediate postoperative outcome between preoperative external beam radiotherapy and preoperative endorectal brachytherapy.

**Material and Methods:** 318 patients treated with preoperative endorectal brachytherapy (HDEBRT) at the McGill University Hospital, Canada were matched (age, gender and stage) to patients from the Swedish Rectal Cancer Register treated with; short course preoperative radiotherapy, SCRT, (n = 318) and TME-surgery alone, RT- (n = 318). The brachytherapy group was given 6.5 Gray (Gy) daily endoluminal over 4 days followed by TME-surgery after 4–8 weeks. The SCRT-group was given 5 Gy daily over 5 days and TME-surgery the next week. Patients were followed until 30 days post operatively. Complications were divided into surgical, cardiovascular and infectious.

**Results:** A total of 954 patients were included in the analysis. The SCRT group had a lower number of cardiovascular complications than both HDEBRT (10 vs 25, p=0.0136) and RT- (10 vs 23, p=0.0273). The HDEBRT patients had fewer minor surgical complications than patients in the SCRT-group (53 vs 91, p=0.0042). No difference could be seen between the three groups regarding major surgical complications or infectious complications. The HDEBRT group had a lower frequency of R2 resections than both Swedish groups and the proportion R0-resections were higher in the HDEBRT group than in RT- (p=0.0250).

**Conclusions:** Preoperative irradiation given as brachytherapy yields less surgical complications than SCRT and a higher number of patients with R0-resections. There are differences in registration between Sweden and Canada, especially regarding complications. A longer interval between radiotherapy and surgery is beneficial for tumour regression and this could be reflected in the number of radical resections.

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ORAL

# **Role of KRas Status in Patients With Metastatic Colorectal Cancer Receiving First-line Chemotherapy Plus Bevacizumab – a TTD Spanish Group Cooperative Study**

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**Background:** Data suggest that Kirsten-ras (KRAS) mutational status has no predictive role in patients with metastatic colorectal cancer (mCRC) treated with bevacizumab and chemotherapy [Ince et al. 2005]. The prognostic role of KRAS status is less clear. To investigate this further, an exploratory, retrospective analysis of the MACRO randomized phase III study [Tabernero et al. ASCO 2010, abstract 3501] was performed to investigate the relationship between KRAS status and clinical outcome in patients with mCRC who received first-line treatment with chemotherapy plus bevacizumab (Bev) followed maintenance therapy with Bev ± chemotherapy.

**Methods:** Patients with mCRC received capecitabine/oxaliplatin (XELOX) plus Bev for 6 cycles followed by maintenance therapy with XELOX plus Bev or single-agent Bev. Tumour samples from consenting patients were collected at baseline and analyzed for KRAS status. The relationship between KRAS status and overall response rate (ORR), progression-free survival (PFS) and overall survival (OS) was analyzed: (i) in all evaluable patients; and (ii) by maintenance regimen.

**Results:** The intent-to-treat population included 480 patients. KRAS status was analyzed in 331 patients; 180 (54.4%) had KRAS wild-type (WT) and 151 (45.6%) had KRAS mutant (MT) tumours. In the XELOX-Bev