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| Supplementary Digital Content 2: Definitions of variables | | |  |
| Source database | Data entry | Variable | Definitions |
| Danish Anesthesia Database (DAD) | Baseline characteristics registered at time of pre-anesthesia interview and anesthesia related variables registered postoperatively by attending anesthetist | ASA Score | I, II, III, IV, V or VI according to guidelines by American Society of Anesthesiologists |
|  |  | Body Mass Index | kg x m^2 |
|  |  | Epidural analgesia | Epidural catheter iserted prior to surgery |
|  |  | Type of general anesthesia | Total intravenous anesthesia or inhalation anesthesia if volatile agents (except nitrous oxide) were used during surgery. |
| Danish Colorectal Cancer Group Database (DCCG) | Entered by surgeon responsible for treatment | Alcohol consumption | Weekly units of 12 g alcohol. If the data were missing the data was obtained from Danish Anesthesia Database where it was entered preoperatively by anesthetists. |
|  |  | Converted from laparoscopy to laparotomy | yes/no |
|  |  | Date of operation | yes/no |
|  |  | Localization of tumor | Direct entry by surgeon. Right-sided tumor was defined as cecum, ascending colon, right flexure and transverse colon. Left sided tumor was defined as left flexure, descending colon and sigmoid colon. |
|  |  | Surgical approach | Registered as "Laparotomy", "Laparoscopy" or "TaTME". "Laparoscopy” or "TaTME" constituted minimally invasive surgery. |
|  |  | Preoperative oncologic treatment | yes/no |
|  |  | Tobacco | Smoker or non-smoker. The data was obtained from Danish Anesthesia Database if they were not available in DCCG. |
|  |  | Urgency | "Elective" or "Acute" according to surgeon. DCCG guidelines describe procedures with the indication perforation, ileus and bleeding as acute. |
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|  | Generated automatically through linkage to Danish National Patient Registry. | Charlson Comorbidity Index | Based on registrations in the Danish National Patient Registry 10 years prior to cancer diagnosis. If cancer diagnoses were registered less than 90 days from current colorectal cancer diagnosis, they were excluded. |
| Danish Civil Registration System | Automatic registration from birth or death certificates or end of Danish residence | Date of Birth | Date |
|  |  | Date of Death | Date |
|  |  | Date of emigration | Date |
|  |  | Sex | Biological sex at time of birth. |
| Danish National Prescription Registry | Automatic data entry when prescriptions are filled at pharmacy | Proton pump inhibitors | Yes/No, Filled prescriptions within 90 days before surgery of ATC "A02BC" or subgroups. |
|  |  | Antidiabetics | Yes/No, Filled prescriptions within 90 days before surgery of ATC "A10"or subgroups |
|  |  | Acetyl Salicylic acid | Yes/No, Filled prescriptions within 90 days before surgery of ATC "B01AC06" or subgroups |
|  |  | Other platelet inhibitors | Yes/No, Filled prescriptions within 90 days before surgery of ATC "B01AC" or subgroups excluding "B01AC06" |
|  |  | Anticoagulants | Yes/No, Filled prescriptions within 90 days before surgery of ATC "B01A" or subgroups excluding "B01AC" and subgroups |
|  |  | Digoxin | Yes/No, Filled prescriptions within 90 days before surgery of ATC "C01AA05" or subgroups |
|  |  | Thiazides | Yes/No, Filled prescriptions within 90 days before surgery of ATC "C03" or subgroups |
|  |  | Beta blockers | Yes/No, Filled prescriptions within 90 days before surgery of ATC "C07" or subgroups |
|  |  | Calcium channel blockers | Yes/No, Filled prescriptions within 90 days before surgery of ATC "C08" or subgroups |
|  |  | Drugs acting on renin angiotensin system | Yes/No, Filled prescriptions within 90 days before surgery of ATC "C09" or subgroups |
|  |  | Lipid lowering drugs | Yes/No, Filled prescriptions within 90 days before surgery of ATC "C10" or subgroups |
|  |  | Estrogen hormone replacement | Yes/No, Filled prescriptions within 90 days before surgery of ATC "G03C" or subgroups |
|  |  | Corticosteroids for systemic use | Yes/No, Filled prescriptions within 90 days before surgery of ATC "H02" or subgroups |
|  |  | Non-steroid anti-inflammatory drugs | Yes/No, Filled prescriptions within 90 days before surgery of ATC "M01A" or subgroups excluding “M01AH” and subgroups and “”M01AX05” and subgroups |
|  |  | Urate lowering drugs | Yes/No, Filled prescriptions within 90 days before surgery of ATC "M04" or subgroups |
|  |  | Bisphosphonates | Yes/No, Filled prescriptions within 90 days before surgery of ATC "M05BA" or "M05BB" or subgroups |
|  |  | Opioids | Yes/No, Filled prescriptions within 90 days before surgery of ATC "N02A" or subgroups |
|  |  | Benzodiazepines | Yes/No, Filled prescriptions within 90 days before surgery of ATC "N05CD" or subgroups and "N05CF" or subgroups |
|  |  | Antidepressants | Yes/No, Filled prescriptions within 90 days before surgery of ATC "N06A" or subgroups |
|  |  | Drugs for obstructive airway diseases | Yes/No, Filled prescriptions within 90 days before surgery of ATC "R03" |
|  |  | Number of different prescriptions | Number of distinct ATC codes in prescriptions within 90 days from surgery. |
| Danish National Patient Registry, Danish National Pathology Registry and Danish Cancer Registry | Data are entered into electronic patient files and automatically transferred to databases | Date of recurrence | 1. Metastatic cancer codes(ICD-10 DC76-DC80) in the Danish National Patient Registry or Danish Cancer Registry over 180 days from surgery and no postoperative cancer diagnosis different from colorectal cancer and non-melanoma skin cancer (ICD10 C44) in between. 2. Chemotherapy (SKS-codes BWHA1-2, BOHJ17 or BOHJ19B1) in Danish National Patient Registry over 180 after surgery or over 60 days after last chemotherapy code without a new primary cancer registered in between. 3. SNOMED (T6491, T65900, T65901, T65925, T65926, T660, T67 or T68 in combination with morphology code M8 or M9 with ≥ 3 in fifth position; any T code with morphology code M8 or M9 with 4, 6 or 7 in fifth position; or T56 in combination with M81403) registered in Danish National Pathology Registry over 180 days after surgery without new primary cancer in between.  4. Local colorectal cancer recurrence registration (ICD-10 DC189X and DC209X) in Danish National Patient Registry any time after surgery. |
| ICD-10 = International Classification of Diseases version 10, SKS = Danish Health Service Classification System. | | | |