Dci1 Center

Please complete the survey below.

Thank you!

Centre identifier (site code)	_____ (Assigned by IMPEL coordinating center)
Country	◯ Albania ◯ Argentina ◯ Australia ◯ Belgium ◯ Bosnia and Herzegovina ◯ Brazil ◯ Cameroon ◯ Ethiopia ◯ Greece ◯ Ireland ◯ Italy ◯ Kenya ◯ Malawi ◯ Netherlands ◯ Nigeria ◯ Serbia ◯ Somalia ◯ Spain ◯ Turkey ◯ Uganda ◯ Ukraine ◯ United Kingdom ◯ United States of America ◯ Vietnam ◯ Zambia ◯ Other (Select 'Other' if not listed)
Country (other, specify)	_____
Hospital type	◯ University/academic hospital ◯ Public general hospital ◯ Private hospital ◯ Cancer center ◯ Mixed/other
On-site intensive care unit (ICU) available 24/7?	◯ No ◯ Yes
Emergency endoscopic decompression service available 24/7?	◯ No ◯ Yes
Self-expanding metal stent (SEMS) capability for colonic obstruction available?	◯ No ◯ Yes
If SEMS available, who can perform it?	☐ Gastroenterology ☐ Colorectal surgery ☐ Emergency/general surgery ☐ Interventional radiology ☐ Other

SEMS operator (other, specify)	_____
Robotic surgical platform available for emergency colorectal cases?	◯ No ◯ Yes
Admission source	◯ Emergency department at index hospital ◯ Direct admission ◯ Transfer from another hospital ◯ Inpatient diagnosis after admission ◯ Unknown
If transferred, reason for transfer	☐ Endoscopic decompression unavailable locally ☐ Colorectal surgery unavailable locally ☐ ICU capability unavailable locally ☐ Interventional radiology unavailable locally ☐ Higher level of care ☐ Insurance/network transfer ☐ Other
If transferred, time from referral/acceptance to arrival at index hospital (hours)	_____ (Use relative interval only. Do not enter clock time.)

Dci2 Demo

Please complete the survey below.

Thank you!

Baseline characteristics

Age (years)	_____
Sex at birth	◯ Female ◯ Male ◯ Other/intersex ◯ Not recorded
Body-mass index (kg/m2)	_____
Clinical Frailty Scale (CFS)	◯ Very fit ◯ Well ◯ Managing well ◯ Vulnerable ◯ Mildly frail ◯ Moderately frail ◯ Severely frail ◯ Very severely frail ◯ Terminally ill ◯ Not recorded
American Society of Anesthesiologists (ASA) physical status	◯ ASA I ◯ ASA II ◯ ASA III ◯ ASA IV ◯ ASA V ◯ Not recorded
Eastern Cooperative Oncology Group (ECOG) performance status	◯ Fully active ◯ Restricted strenuous activity ◯ Ambulatory >50% waking hours ◯ Limited self-care ◯ Completely disabled ◯ Not recorded
Pregnant?	◯ No ◯ Yes ◯ Unknown/not recorded
Key comorbidities	☐ Ischemic heart disease ☐ Congestive heart failure ☐ Cerebrovascular disease ☐ Chronic kidney disease ☐ Diabetes mellitus ☐ Chronic pulmonary disease ☐ Active malignancy ☐ Metastatic malignancy ☐ Immunosuppression ☐ Dementia ☐ None recorded

Therapeutic anticoagulation at presentation?	◯ No ◯ Yes ◯ Unknown/not recorded
Antiplatelet therapy at presentation?	◯ No ◯ Yes ◯ Unknown/not recorded
Prior abdominal surgery?	◯ No ◯ Yes ◯ Unknown/not recorded

Dci3 Present

Presentation and initial assessment

Working clinical classification at presentation	◯ Malignant obstruction ◯ Sigmoid volvulus ◯ Cecal volvulus ◯ Diverticular/inflammatory stricture ◯ Radiation stricture ◯ Hernia involving colon ◯ Extrinsic compression ◯ Other mechanical obstruction ◯ Unclear at presentation
Duration of symptoms before admission (days)	_____
Abdominal pain present?	◯ No ◯ Yes ◯ Unknown/not recorded
Vomiting present?	◯ No ◯ Yes ◯ Unknown/not recorded
No passage of stool and flatus (obstipation)?	◯ No ◯ Yes ◯ Unknown/not recorded
Generalized peritonitis clinically suspected at presentation?	◯ No ◯ Yes ◯ Unknown/not recorded
Fever (>=38.0 C) on arrival?	◯ No ◯ Yes ◯ Unknown/not recorded
Sepsis status at presentation	◯ No sepsis ◯ Sepsis suspected ◯ Septic shock ◯ Unknown/not recorded
Systolic blood pressure (mmHg)	_____
Heart rate (beats/min)	_____
Respiratory rate (breaths/min)	_____
Temperature (C)	_____
Serum lactate (mmol/L)	_____

ICU admission planned within first 24 hours?

◯ No
◯ Yes
◯ Unknown/not recorded

Dci4 Decision

Decision node and initial management

For IMPEL analyses, time zero is hospital admission for mechanical large-bowel obstruction. Record only relative intervals. Do not enter calendar dates or clock times.

Initial management strategy selected within first 24 hours

- ◯ Immediate surgery
- ◯ Temporizing non-operative management
- ◯ Endoscopic decompression-first
- ◯ SEMS bridge-to-surgery
- ◯ Palliative/supportive management only
- ◯ Transfer for definitive care
- ◯ Not recorded

At the time of the attending surgeon initial management decision, which strategies were considered clinically feasible?

- ☐ Immediate definitive surgery
- ☐ Endoscopic decompression-first strategy
- ☐ Temporizing non-operative management
- ☐ SEMS bridge-to-surgery strategy
- ☐ Palliative/supportive management only
- ☐ Transfer to higher-level center required before definitive care
- ☐ Not documented

(Abstract from routine documentation only. This field does not imply protocolized treatment assignment.)

Primary reason initial management strategy was selected

- ◯ Physiologic instability prohibiting definitive surgery
- ◯ Presumed reversible obstruction
- ◯ Need for resuscitation/optimization
- ◯ Bridge to elective or semi-elective surgery
- ◯ Palliative intent
- ◯ Frailty/high operative risk
- ◯ Resource or logistical limitation
- ◯ Endoscopic decompression preferred initially
- ◯ Diagnostic uncertainty
- ◯ Patient preference
- ◯ Other
- ◯ Not documented

(Abstract from routine clinical documentation.)

Overall treatment intent during index admission

- ◯ Definitive curative-intent treatment
- ◯ Temporizing bridge-to-surgery strategy
- ◯ Palliation/symptom control
- ◯ Damage-control/staged stabilization
- ◯ Uncertain at time of admission
- ◯ Not documented

At initial attending surgeon assessment, estimated probability (%) that the patient would require operative intervention during index admission

_____

(Optional gestalt estimate based on routine clinical judgement if documented or obtainable within local workflow.)

Dci5 Imaging

Imaging, obstruction phenotype, and admission laboratory values

Computed tomography (CT) performed?
- ◯ No
- ◯ Yes
- ◯ Unknown/not recorded

Time from admission to first CT (hours)

_____
(Relative interval only. Do not enter date or clock time.)

Anatomic level of obstruction (most distal transition point)
- ◯ Cecum
- ◯ Ascending colon
- ◯ Hepatic flexure
- ◯ Transverse colon
- ◯ Splenic flexure
- ◯ Descending colon
- ◯ Sigmoid colon
- ◯ Rectosigmoid
- ◯ Rectum
- ◯ Multiple/uncertain
- ◯ Not recorded

Presumed etiology on imaging
- ◯ Malignancy
- ◯ Sigmoid volvulus
- ◯ Cecal volvulus
- ◯ Diverticular/inflammatory stricture
- ◯ Radiation stricture
- ◯ Hernia involving colon
- ◯ Extrinsic compression
- ◯ Fecal impaction with mechanical obstruction
- ◯ Other
- ◯ Unclear/not recorded

Closed-loop physiology suspected?
- ◯ No
- ◯ Yes
- ◯ Unknown/not recorded

Closed-loop mechanism
- ◯ Volvulus
- ◯ Obstructing lesion with competent ileocecal valve
- ◯ Internal hernia
- ◯ Other
- ◯ Not recorded

Maximal colonic diameter (cm) on imaging

_____

Cecal diameter (cm) on imaging

_____

Free intraperitoneal air?
- ◯ No
- ◯ Yes
- ◯ Unknown/not recorded

Free intraperitoneal fluid?
- ◯ No
- ◯ Yes
- ◯ Unknown/not recorded

Radiologic features suggesting bowel compromise (ischemia/necrosis)?	◯ No ◯ Yes ◯ Unknown/not recorded
Pneumatosis intestinalis present?	◯ No ◯ Yes ◯ Unknown/not recorded
Portal venous gas present?	◯ No ◯ Yes ◯ Unknown/not recorded
White-cell count (x10^9/L)	_____
Hemoglobin (g/dL)	_____
C-reactive protein (mg/L)	_____
Creatinine (mg/dL)	_____

Dci6 Nonoperative

Non-operative, decompression-first, and SEMS pathways	
Non-operative or temporizing management attempted at any point?	◯ No ◯ Yes ◯ Unknown/not recorded
Endoscopic decompression attempted? (e.g., volvulus/stricture)	◯ No ◯ Yes ◯ Unknown/not recorded
If endoscopic decompression attempted, was initial decompression clinically successful?	◯ No ◯ Yes ◯ Unknown/not recorded
Colonic SEMS attempted?	◯ No ◯ Yes ◯ Unknown/not recorded
If SEMS attempted, intended strategy	◯ Bridge to elective/semi-elective resection ◯ Palliation ◯ Temporary decompression while optimizing ◯ Destination therapy attempt ◯ Not recorded
SEMS operator specialty	◯ Gastroenterology ◯ Colorectal surgery ◯ Emergency/general surgery ◯ Interventional radiology ◯ Other ◯ Not recorded
SEMS technical/clinical success	◯ Not successful ◯ Technical success only ◯ Technical and clinical success ◯ Not recorded
If bridge strategy, interval to definitive surgery (days)	_____
If observed before surgery or discharge, duration of conservative management (days)	_____

Dci7 Surg

Operative management

Surgery performed during index admission?
- ◯ No
- ◯ Yes
- ◯ Unknown/not recorded

Time from admission to first abdominal operation (hours)

_____
(Relative interval only. Do not enter date or clock time.)

If operative intervention was not immediate, what factors contributed to delay?
- ☐ Hemodynamic instability/resuscitation required
- ☐ Anticoagulation reversal required
- ☐ Additional imaging required
- ☐ Endoscopic decompression attempted first
- ☐ Operating room unavailable
- ☐ Surgeon unavailable
- ☐ ICU bed unavailable
- ☐ Transfer delay
- ☐ Awaiting subspecialty consultation
- ☐ Patient/family preference or decision-making delay
- ☐ Other
- ☐ Not documented

(Use when delay was clinically meaningful or time to operation exceeded 6 hours.)

Operative approach
- ◯ Open
- ◯ Laparoscopic
- ◯ Robotic
- ◯ Hybrid/minimally invasive assisted
- ◯ Converted to open
- ◯ Not recorded

If converted to open, primary reason
- ◯ Exposure/access
- ◯ Hemodynamic instability
- ◯ Adhesions
- ◯ Perforation/contamination
- ◯ Ischemia/necrosis
- ◯ Oncologic concern
- ◯ Other
- ◯ Not recorded

Primary operative strategy
- ◯ Segmental colectomy
- ◯ Subtotal/total colectomy
- ◯ Hartmann procedure
- ◯ Resection with primary anastomosis
- ◯ Diverting stoma without resection
- ◯ Detorsion only
- ◯ Damage-control/abbreviated laparotomy
- ◯ Bypass
- ◯ Other
- ◯ Not recorded

Perforation found at surgery?
- ◯ No
- ◯ Yes
- ◯ Unknown/not recorded

Diastatic cecal perforation present?	◯ No ◯ Yes ◯ Unknown/not recorded
Bowel viability concern at operation?	◯ No ◯ Yes ◯ Unknown/not recorded
Degree of intra-abdominal contamination	◯ None ◯ Serous/simple fluid ◯ Localized enteric contamination ◯ Generalized enteric/fecal contamination ◯ Not recorded
Primary anastomosis performed?	◯ No ◯ Yes ◯ Unknown/not recorded
If anastomosis, was it defunctioned?	◯ No ◯ Yes ◯ Unknown/not recorded
If defunctioned, diversion type	◯ Loop ileostomy ◯ End ileostomy ◯ Loop colostomy ◯ End colostomy ◯ Other ◯ Not recorded
If no primary anastomosis performed, contributing reasons	☐ Hemodynamic instability ☐ Fecal contamination ☐ Bowel viability concerns ☐ Poor tissue quality ☐ Frailty/comorbidity burden ☐ Steroid/immunosuppression ☐ Anastomotic risk judged prohibitive ☐ Palliative intent ☐ Surgeon preference ☐ Other ☐ Not documented
Stoma created at any point during index operation?	◯ No ◯ End colostomy ◯ Loop colostomy ◯ End ileostomy ◯ Loop ileostomy ◯ Mucous fistula ◯ Other ◯ Not recorded
Primary intent of stoma	◯ Defunctioning anastomosis ◯ Bridge to definitive resection ◯ Non-restorative/palliative ◯ Damage-control/staged strategy ◯ Permanent oncologic or functional intent ◯ Not recorded
At the time of index surgery, was the stoma expected to be permanent?	◯ No ◯ Yes ◯ Unknown/not recorded

If subtotal/total colectomy, contributory reasons	☐ Cecal ischemia/perforation ☐ Multifocal colonic compromise ☐ Uncertain viability ☐ Synchronous lesions ☐ Severe colonic dilatation ☐ Other ☐ Not documented
Indocyanine green (ICG) fluorescence imaging used?	◯ No ◯ Yes ◯ Unknown/not recorded
Damage-control (staged/abbreviated) strategy used?	◯ No ◯ Yes ◯ Unknown/not recorded
Planned second-look operation intended?	◯ No ◯ Yes ◯ Unknown/not recorded

Dci8 Outcome

In-hospital, 30-day, and 90-day outcomes

Discharge status	◯ Alive discharged home ◯ Alive discharged to rehabilitation/skilled nursing facility ◯ Alive transferred to another acute hospital ◯ Died during index admission ◯ Not recorded
Total hospital length of stay (days)	_____
ICU length of stay (days)	_____
Any complication within 30 days?	◯ No ◯ Yes ◯ Unknown/not recorded
Highest Clavien-Dindo grade within 30 days	◯ Grade I ◯ Grade II ◯ Grade IIIa ◯ Grade IIIb ◯ Grade IVa ◯ Grade IVb ◯ Grade V ◯ Not recorded
Anastomotic leak within 30 days?	◯ No ◯ Yes ◯ Unknown/not recorded
Reoperation within 30 days?	◯ No ◯ Yes ◯ Unknown/not recorded
Readmission within 30 days?	◯ No ◯ Yes ◯ Unknown/not recorded
Death within 30 days of admission?	◯ No ◯ Yes ◯ Unknown/not recorded
Death within 90 days of admission?	◯ No ◯ Yes ◯ Unknown/not recorded
Unplanned readmission within 90 days?	◯ No ◯ Yes ◯ Unknown/not recorded
Stoma present at discharge?	◯ No ◯ Yes ◯ Unknown/not recorded

Stoma reversal status at 6 months	◯ No stoma created ◯ Reversed within 6 months ◯ Stoma still present at 6 months ◯ Died before reversal ◯ Lost to follow-up ◯ Not recorded
If stoma not reversed by 6 months, documented reason	☐ Awaiting planned reversal ☐ Medically unfit ☐ Patient declined ☐ Progressive/recurrent malignancy ☐ Palliative intent ☐ Anastomotic/rectal stump concern ☐ Health-system delay/waitlist ☐ Died before reversal ☐ Other ☐ Not documented

Dci9 Prom

Patient-reported outcomes where available through routine care

Patient-reported outcomes collected through routine clinical follow-up?	◯ No ◯ Yes ◯ Unknown/not recorded (No additional patient contact is mandated by IMPEL.)
PRO-diGI overall gastrointestinal recovery VAS (0-100)	_____
Generic health status EQ-5D VAS (0-100), if collected	_____

Dci10 Completion

Completion check

End of IMPEL patient data collection instrument. Please verify that no direct identifiers, calendar dates, clock times, free-text identifiers, or uploaded source documents have been entered.

Data-quality confirmation

- ☐ Case captured consecutively during local inclusion window
- ☐ No direct identifiers entered
- ☐ Relative time intervals used instead of dates/times
- ☐ Key outcomes checked against routine records