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Original Article

Small bowel obstruction outcomes according to compliance with the World Society of Emergency Surgery Bologna guidelines

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Abstract

Background: Small bowel obstruction (SBO) is a common surgical emergency associated with substantial morbidity, hospital length of stay (LOS), and healthcare cost. The World Society of Emergency Surgery (WSES) Bologna guidelines provide evidence-informed recommendations for managing adhesive SBO, promoting timely surgical intervention (or non-operative management (NOM) when ischaemia, strangulation, or peritonitis are absent). However, guideline adoption and its impact on outcomes remain under studied. Compliance with the Bologna guidelines was evaluated to determine the impact of compliance on outcomes.

Methods: SnapSBO, a prospective, multicentre, time-bound, observational cohort study, captured data on patients with adhesive SBO across diverse healthcare settings and patient populations. Patient care was categorized into: successful NOM, surgery after an unsuccessful appropriate trial of NOM (NOM-T), and direct to surgery (DTS). Compliance with diagnostic, therapeutic, and postoperative Bologna guideline recommendations was assessed as either complete or partial. Primary outcomes included adherence to the Bologna guidelines, LOS, complications, and the incidence of the composite metric 'optimal outcomes' (LOS ≤5 days, discharge without complications, and no readmission within 30 days).

Results: Among 982 patients with adhesive SBO, successful NOM occurred in 561 (57.1%), 224 (22.8%) underwent NOM-T, and 197 (20.1%) proceeded DTS. The mean(s.d.) LOS was 5.3(9.0), 12.9(11.4), and 7.7(8.0) days respectively ($P < 0.001$). Optimal outcomes were achieved in 61.0%, 16.1%, and 37.6% respectively ($P < 0.001$) and full guideline compliance was observed in 17.2%, 10.1%, and 0.4% respectively.

Conclusion: Patients with adhesive SBO whose care was aligned with the Bologna guidelines had a shorter LOS and a greater incidence of optimal outcomes. Addressing evidence-to-practice gaps through implementation strategies that consider contextual factors will enhance guideline adoption and patient outcomes.

Lay summary

Small bowel obstruction happens when the intestine becomes blocked, often due to scar tissue from previous surgery. It is a common reason people are admitted to hospitals for emergency surgery worldwide. Doctors have created clear guidelines (expert advice) on how best to treat this condition to improve patient outcomes. This study looked at whether doctors follow these guidelines and how it affects patient results. Researchers found that hospitals frequently struggle to fully follow the guidelines because they lack necessary resources or due to differences in medical practices. Improving how closely doctors follow these guidelines could help patients recover faster and experience fewer complications.

Introduction

Small bowel obstruction (SBO) is a common cause of surgical admission and is associated with significant morbidity, healthcare cost, and resource utilization[1–3]. Adhesions are the most common aetiology in high-income settings, whereas malignancy and hernia are more globally represented[4,5]. Despite diagnostic, therapeutic, and technical advances, patients continue to face delayed symptom resolution, high complication rates, and frequent recurrence of obstruction[6,7].

Evidence-informed expert consensus guidelines aim to reduce practice variability, enhance treatment effectiveness, and improve clinical and patient-reported outcomes. The World Society of Emergency Surgery (WSES) Bologna guidelines offer

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Table 1 Summary of key recommendations from the WSES Bologna guidelines (2017 update) for the management of adhesive SBO

WSES Bologna guideline recommendation statement	Supported treatment pathway			Level of evidence	Supporting evidence
	DTS	Successful NOM	NOM-T		
Presence of clinical signs of peritonitis or CT findings (pneumatosis, closed-loop obstruction, perforation, or bowel ischaemia).	✓	✗	✗	IIC	Fevang 2002; Fevang 2004; Ten Broek 2013; Jeppesen 2016
NOM is preferred unless emergency signs are present.	✗	✓	✗	IIC	Fevang 2002; Fevang 2004; Ten Broek 2013; Jeppesen 2016
NOM can safely continue for 72 h.	✗	✓	✓	IIB	Keenan 2014; Sakakibara 2007
Nutritional status and laboratory tests (blood count, lactate, etc.) should be part of the initial evaluation.	✓	✓	✓	IID	Expert opinion
Plain X-rays are not recommended for diagnosis.	✓	✓	✓	IIC	Maglinte 1996
Optimal diagnostic work-up includes CT and water-soluble oral contrast.	✓	✓	✓	IB	Ceresoli 2016; Branco 2010; Abbas 2005; Goussous 2013
Follow-up abdominal X-rays 24 h after contrast to assess resolution.	✗	✓	✓	IB	Ceresoli 2016; Branco 2010; Abbas 2005; Goussous 2013
Water-soluble contrast predicts the need for surgery and reduces hospital LOS.	✗	✓	✓	IIB	Keenan 2014; Sakakibara 2007

WSES, World Society of Emergency Surgery; SBO, small bowel obstruction DTS, direct to surgery; NOM, non-operative management NOM-T, surgery after an unsuccessful appropriate trial of non-operative management; LOS, length of stay.

recommendations encompassing diagnosis, non-operative management (NOM), surgery, and postoperative care for patients with adhesive SBO[3]. See *Table 1*.

Resource limitations, regional healthcare delivery differences, and competing clinical priorities may hinder guideline adoption[8]. While deviations from guideline-based care may contribute to population-level outcome disparities, the causes and effects of non-compliance for an individual patient remain poorly characterized[9]. Furthermore, evaluating concordance with guideline-informed care helps shape future guideline development to detail new knowledge, highlight evidence-to-practice gaps, identify implementation barriers, and refine deployment strategies that improve adoption and utilization[10,11].

Prospective, multicentre, time-bound observational studies, termed snapshot audits, are well suited to assess guideline adherence in heterogeneous real-world environments, identifying specific evidence-to-practice gaps and barriers to implementation[12]. This study, SnapSBO, examines whether and how full or partial guideline compliance influences patient outcomes, including complications and hospital length of stay (LOS).

Methods

SnapSBO, a prospective, multicentre, time-bound, observational cross-sectional cohort study, was performed using established snapshot audit methodology and was pre-registered with ClinicalTrials.gov (NCT05843097). Centre participation was not limited to specific practice settings or geographical locations[12]. Data were collected over 7 months (1 November 2023 to 31 May 2024), capturing consecutive inpatient admissions for confirmed adhesive SBO. All centres obtained local institutional review board approval and data complied with European Union General Data Protection Regulation (GDPR; (EU) 2016/679) and Health Insurance Portability and Accountability Act (HIPAA; 1996) standards, as applicable.

Eligible participants included adults (≥18 years) with radiologically confirmed SBO, defined as an obstruction impeding luminal flow due to a mechanical cause. Patients with functional disease (for example paralytic ileus) and those with incomplete data were excluded from the analysis. As the WSES Bologna guidelines only address adhesive SBO, subgroup analysis of practice patterns was limited to this aetiology. See *Fig. 1*.

Patients were followed from admission to 60 days after discharge to capture complications, recovery milestones, and adherence to guideline recommendations. Primary outcomes included adherence to the Bologna guidelines, complications, LOS, and the incidence of the composite metric 'optimal outcomes' (LOS ≤5 days, discharge without complications, and no readmission within 30 days). Secondary outcomes included utilization of guideline elements relevant to the pursued treatment pathway (described below). Variables studied included demographics, co-morbidities, initial treatment strategy (non-operative *versus* operative), diagnostic approach (for example CT and water-soluble enteral contrast use), and institutional characteristics (teaching status and resource level).

Anonymized data were collected using standardized forms and stored in a secure password-protected firewalled Research Electronic Data Capture (REDCap) database (version 14.8.3 - © 2024 Vanderbilt University) compliant with GDPR data-protection standards and housed at the University of Pennsylvania. Local investigators reviewed patient records daily to ensure data fidelity and all sites validated >95% completeness of key fields.

A point-based scoring system provided a consistent framework for assessing compliance with the Bologna guidelines across management pathways. See *Table 2*. Full compliance required utilization of all process-based recommendations; compliance was otherwise assessed as partial compliance or non-compliance. For patients managed using the NOM pathway, compliance was scored on a scale of zero to six points. Elements included appropriate nasogastric tube management, use of water-soluble oral contrast, follow-up abdominal radiography to confirm obstruction resolution, and resolution without surgery (for successful NOM). For patients for whom initial NOM failed (persistent or worsening symptoms after 24 h), compliance required adherence to the same diagnostic and monitoring elements, followed by surgical intervention (thus, such patients underwent surgery after an unsuccessful appropriate trial of NOM (NOM-T)). For patients initially managed using the direct to surgery (DTS) pathway, compliance was scored on a scale of zero

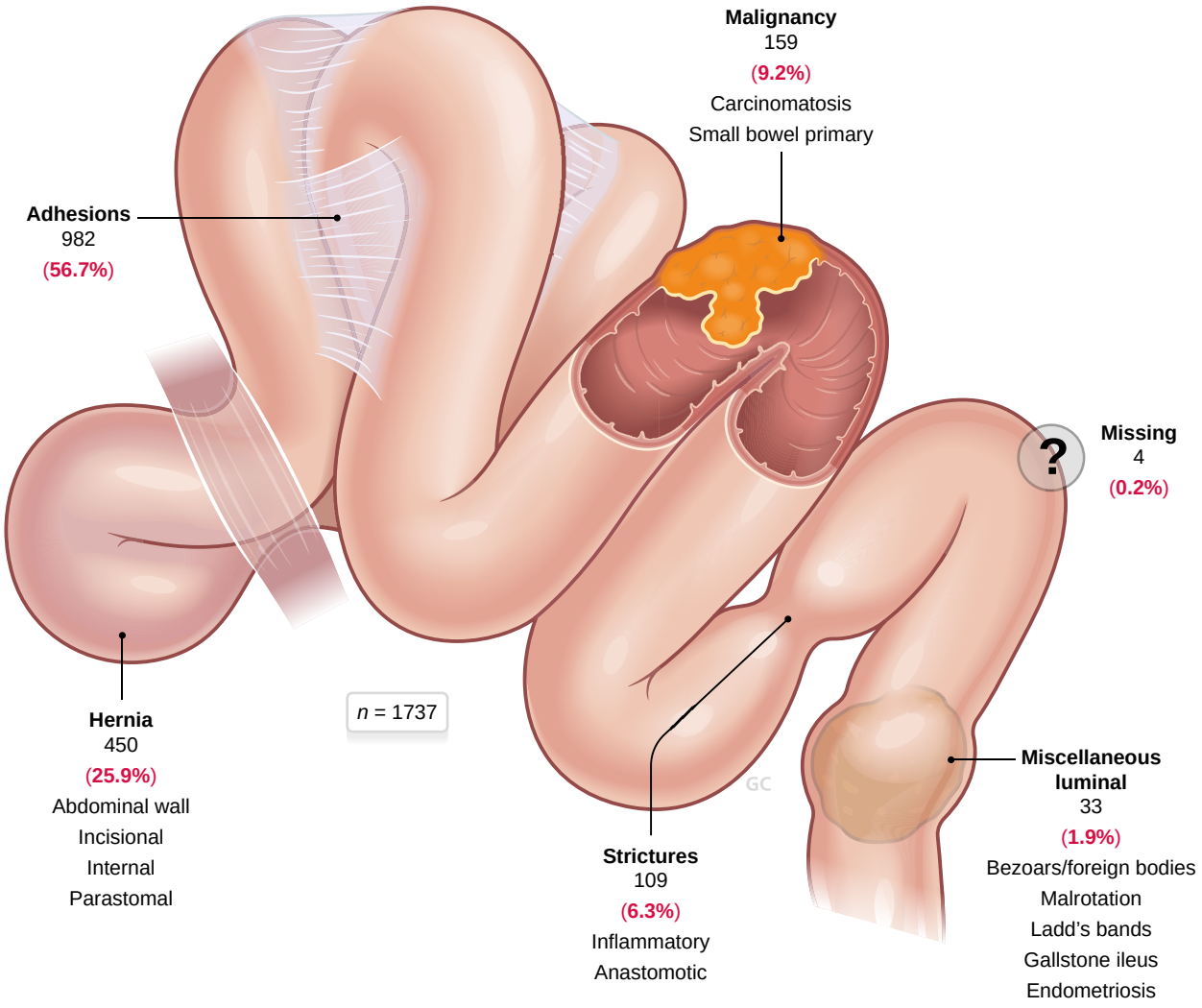


Fig. 1 Aetiologies of SBO in the study cohort ($n = 1737$)
SBO, small bowel obstruction.

to four points based on: completion of laboratory analysis, CT imaging, recognition of the need for emergency surgery, and timely (<6 h) operation.

Descriptive statistics summarize baseline characteristics and adherence rates. Statistical significance was defined as $P < 0.050$. Analyses were performed using Jamovi (version 2.6.2.0, retrieved from https://www.jamovi.org) and the R statistical programming language (version 4.1.2). Figures were created using Biorender® (https://app.biorender.com).

Results

A total of 70 centres incorporating teaching (94.9%) and community (5.1%) settings in 20 countries across a spectrum of resource availability and socio-economic and cultural contexts were included. Among the 1737 SnapSBO patients, adhesions were the most common aetiology (982 patients (56.7%)).

Patient cohorts were defined by the initial management pathway. See *Fig. 2*. NOM was attempted in 785 of 982 patients (79.9%), with success in 561 patients (71.4% of NOM patients; 57.1% of population). A total of 224 patients (28.5% of NOM patients; 22.8% of overall population) underwent NOM-T and 197 of 982 patients (20.1%) proceeded DTS. Ultimately, 421 patients (42.8%) underwent surgical treatment of adhesive SBO. A nasogastric tube was placed for decompression in 769 patients, including 154 of 197 DTS patients (79%) and 615 of 785 NOM patients (85.7%).

The mean(s.d.) LOS was 4.7(8.5) days for successful NOM (561 patients), 13.0(11.1) days for NOM-T (224 patients), and 8.3(7.2) days for DTS (197 patients) ($P < 0.001$). Optimal outcomes were achieved in 342 of 561 NOM patients (60.1%), 36 of 224 NOM-T patients (16.1%), and 74 of 197 DTS patients (37.6%) ($P < 0.001$). Non-surgical complications, such as aspiration pneumonia, pulmonary embolism, respiratory failure, and acute kidney injury, occurred equally across all cohorts. See *Tables S1–S5*. Decompression via nasogastric tube was not associated with aspiration pneumonia ($P = 0.092$), with 2 events (0.9%) occurring in patients who had a nasogastric tube compared with 25 events (2.5%) occurring in patients who did not have a nasogastric tube.

A total of 25 postoperative complications occurred in NOM-T patients *versus* 23 in DTS patients. The incidence of specific postoperative complications, such as organ space infections, superficial wound dehiscence, and recurrent bowel obstruction, did not differ between the cohorts who were operated on. See *Tables S1, S2*. Mortality (Clavien–Dindo grade V) was higher in

Table 2 WSES Bologna guideline compliance elements captured for the three principal treatment pathways (DTS, NOM-T, and successful NOM)

Treatment pathway	Compliance elements	Scoring (points)
DTS	Nutritional and laboratory tests completed. CT performed. Surgery indicated by clinical/CT signs. Surgery performed without delay.	0–4
NOM-T	Nutritional and laboratory tests completed. CT performed. Appropriate NG tube management. Correct use of water-soluble enteral contrast. Follow-up abdominal X-ray after contrast. Timely surgery after failed NOM.	0–6
Successful NOM	Nutritional and laboratory tests completed. CT performed. Appropriate NG tube management. Correct use of water-soluble oral contrast. Follow-up abdominal X-ray after contrast. SBO resolved without surgery.	0–6

WSES, World Society of Emergency Surgery; DTS, direct to surgery; NOM-T, surgery after an unsuccessful appropriate trial of non-operative management; NOM, non-operative management; NG, nasogastric; SBO, small bowel obstruction.

NOM-T patients (15 of 244 (6.8%)) compared with DTS patients (9 of 197 (4.6%)) ($P = 0.462$).

Full compliance was highest in the NOM group (113 of 656 (17.2%)) when compared with the NOM-T group (24 of 238 (10.1%)) and the DTS group (2 of 477 (0.4%)) ($P < 0.001$). Patients managed with fully guideline-compliant care demonstrated a reduced LOS (mean(s.d.) of 4.1(3.9) days) when compared with patients managed with partial compliant care (mean(s.d.) of 7.8(10) days) or non-compliant care (mean(s.d.) of 11.5(12.2) days) ($P = 0.002$). Similarly, full compliance was associated with more frequent optimal outcomes (full compliance 77.4%, partial compliance 60%, and non-compliance 51.1%) ($P < 0.001$). In DTS patients, progressively higher compliance (scores of 3–4) correlated with fewer complications, with no anastomotic leaks or infections. Lower compliance (scores of 0–2) was linked to increased surgical-site infection ($P = 0.048$) and fascial dehiscence ($P = 0.019$). ICU admission rates and higher revised cardiac risk index (RCRI) scores were inversely associated with compliance across all pathways ($P < 0.001$). See *Tables S1–S5*.

Discussion

Adhesive SBO has a high recurrence rate and remains a substantial cause of morbidity and mortality that increases healthcare cost[12,13]. Clinical guidelines are generally derived using two principal approaches: using evidence synthesized from prospective RCTs or using expert consensus groups that integrate physiology, existing data, and experience to craft recommendations[14,15]. The WSES Bologna guidelines for adhesive SBO exemplify the latter, providing a pragmatic diagnostic and management framework[3]. Bologna guideline adherence offers the potential to improve morbidity and mortality metrics, reduce healthcare resource utilization, and decrease recurrence of obstruction by promoting consistent and timely interventions. However, such opportunities rely on guideline adoption and utilization.

Other guidelines address patient-specific factors, rather than management approaches. Elderly patients with multi-morbidity, with or without frailty, benefit from individualized risk stratification and goals-of-care determinations that may direct early intervention, NOM, or comfort care[16,17]. Of note, geriatric patient outcomes are not often comprehensively assessed, leaving occurrence rates uncertain[18]. Despite care advances, gaps remain in ensuring goal-concordant care for elderly patients across the panoply of interventions for adhesive SBO. Evidence-informed—as opposed to evidence-based—recommendations, in concert with knowledge and process gaps, underscore the complexity of managing patients with adhesive SBO; surgeons must balance recommendations against individualized and patient-centred care[3,15,18,19].

RCTs, which actively constrain patient and centre heterogeneity through inclusion criteria, are unable to provide an environmental scan of clinical practice to inform guideline authors or implementation scientists how guideline recommendations are utilized across practice settings[10]. Instead, a prospective, time-bound observational cohort that generates a multicentre international data set is ideally suited to investigate both compliance and outcomes; such studies are termed ‘snapshot audits’[20]. Accordingly, the SnapSBO audit provides a broad opportunity to examine patient-level linkages between contemporary practice patterns, guideline adherence, and their impact on outcomes for patients with adhesive SBO.

These findings reveal a clear association between compliance with the Bologna guidelines and patient outcomes. Greater compliance demonstrated an ordinal association with reduced LOS and more frequent achievement of optimal outcomes across all management pathways. Additionally, greater compliance reduced postoperative complications in DTS and NOM-T patients. These findings underscore the value of reduced variation in care regardless of setting. Institutional factors, such as resource availability and local culture, may strongly influence adherence[21]. At the surgeon level, individual heuristics, clinical experience, and risk tolerance influence the likelihood of guideline-concordant care. The paradoxical increase in complications among fully compliant NOM-T patients likely reflects confounding by indication, wherein more complex cases receive comprehensive and prolonged, but ultimately unsuccessful, NOM before surgery. The absence of significant associations between compliance and non-surgical complications suggests that these events may be primarily driven by co-morbidities, rather than protocolized care adherence. The strong association between ICU admission rates and lower compliance suggests that non-compliance leads to greater clinical deterioration and escalation of care intensity. Additionally, the inverse correlation between compliance and RCRI scores highlights the challenge of achieving full compliance in frail or multi-morbid patients. The observed variability also suggests that, while guidelines offer evidence-informed frameworks, their successful implementation is contingent upon aligning institutional practices and clinician behaviour with care recommendations[22]. Addressing these factors through targeted interventions may reduce practice variability, enhance compliance, and improve patient outcomes[22,23]. Future studies should explore risk-adjusted models to disentangle causality from selection bias, ensuring that compliance-driven improvements in outcomes are accurately interpreted.

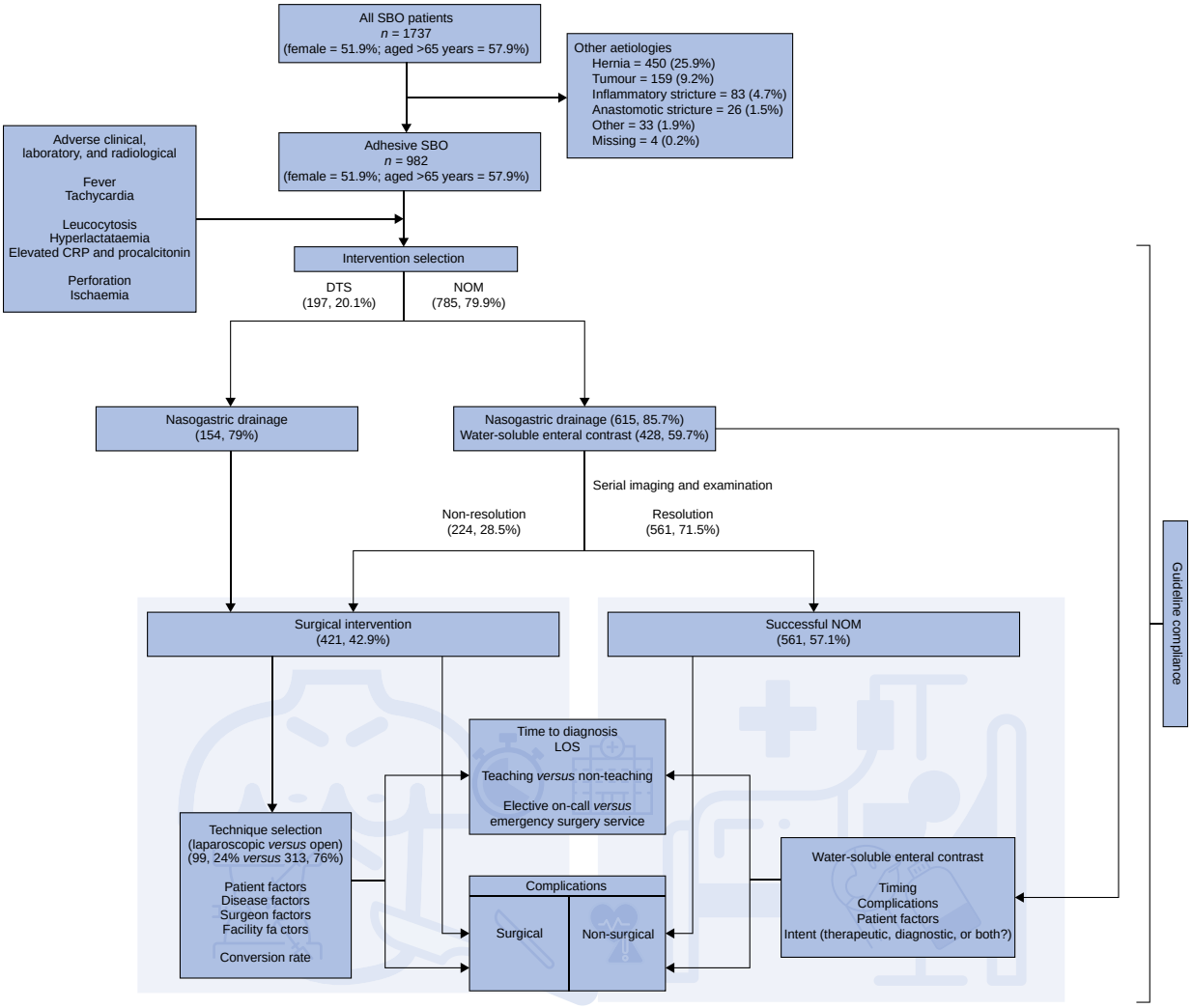


Fig. 2 Patient flow diagram

SBO, small bowel obstruction; CRP, C-reactive protein; DTS, direct to surgery; NOM, non-operative management.

Implementation science leverages structured approaches, termed frameworks, to identify barriers to guideline adoption, as well as potential solutions. The updated consolidated framework for implementation research (CFIR 2.0) examines guideline adoption success across domains, such as intervention characteristics (guideline complexity, adaptability, and evidence base), inner settings (key organizational barriers, including local resource limitations and training gaps), outer settings (factors such as policies, funding, and external incentives), and individual behaviours[24]. The expert recommendations for implementing change (ERIC) framework offers a taxonomy of evidence-based strategies to address barriers and facilitate improved guideline adoption[25]. It is essential to recognize that each of these tools is optimally deployed within a single institution or healthcare system, as they benefit from granular input to chart successful paths toward closing the knowledge-to-practice gap.

Barriers at the patient, clinician, and system levels that challenge the implementation of the Bologna guidelines can be examined using the thematic frameworks mentioned above (*Table 3*). Patient-level issues include delayed presentation, often due to limited symptom awareness and access to care[26–28]. This delay is compounded by a lack of adaptability in treatment pathways to accommodate varying degrees of physiological reserve, particularly in frail patients. Addressing these gaps may leverage strategies that include targeted patient awareness campaigns (analogous to those seen promoting breast or colorectal cancer screening), frailty screening tools, and clinician training[28]. Additionally, clinician-level variability in applying laboratory markers, such as lactate or creatinine, and an over-reliance on CT findings for operative decisions highlight the need for multimodal diagnostic frameworks that shape decision-making and sequential management steps[29]. This could be achieved through the integration of decision-support tools into electronic health records (EHRs) or mandatory training modules emphasizing the guidelines' key recommendations[30–32]. Resource-tiered recommendations, as well as EHR-based compliance dashboards, are among possible solutions that can address systematic barriers to adoption.

System-level challenges, such as resource limitations and inconsistent multidisciplinary collaboration (when of benefit), further hinder guideline adherence. Resource limitations may necessitate deviation from or adaptation of clinical guidelines to embrace feasible alternatives, such as less resource-intensive diagnostics or therapies. It may be ideal to couple adaptations with telemedicine support from tertiary centres, to bridge

Table 3 Thematic analysis of potential gaps in guideline adoption and proposed implementation strategies

Level	Gaps and barriers	ERIC implementation approach
Patient	Delayed presentation due to limited awareness of symptoms or access to care.	Engage: Launch targeted awareness campaigns emphasizing early symptom recognition (for example abdominal pain or distension). Prepare: Partner with community health programmes to enhance outreach.
	Invariance in treatment pathways to accommodate degrees of physiological reserve.	Implement: Integrate frailty screening tools (for example the clinical frailty scale) into workflows to individualize care. Evaluate: Assess frailty-specific outcomes to refine guideline use.
Clinician	Underutilization of laboratory findings in surgical decision-making.	Prepare: Provide interactive workshops on integrating lab data into decision-making. Engage: Use clinical vignettes to demonstrate improved outcomes with lab-guided decisions.
	Over-reliance on CT findings for operative decisions.	Implement: Introduce a multimodal diagnostic protocol combining labs, CT, and clinical signs. Engage: Deliver visual decision aids at point of care to reinforce multimodal approaches.
	Variability in adherence due to differences in training, experience, or familiarity with guidelines.	Prepare: Develop standardized training modules on guideline use. Implement: Embed decision support systems in EHRs.
System	Resource constraints in lower-capacity centres limiting guideline application.	Implement: Adapt guidelines with resource-tiered recommendations. Evaluate: Use implementation tracking to measure resource-driven adherence and outcomes.
	Lack of integrated systems to track guideline adherence and evaluate outcomes.	Prepare: Deploy EHR-based compliance dashboards. Implement: Provide real-time feedback to clinicians on adherence and outcomes.
	Insufficient multidisciplinary collaboration, particularly in cases requiring coordinated care.	Engage: Establish cross-discipline case reviews to reinforce collaboration. Implement: Incorporate multidisciplinary rounds into the care workflow with defined team roles.

ERIC, expert recommendations for implementing change; EHR, electronic health record.

resource gaps (including specialists) and create opportunities for collaboration around patient care[33]. Additionally, promoting structured care pathways that integrate surgeons, radiologists, and intensivists into interdisciplinary teams can enhance decision-making consistency and quality, as well as improve adherence to evidence-informed practices[34]. Collectively, addressing these barriers requires a tailored implementation strategy. Efforts to educate clinicians, inform and enable patients, and integrate standardized approaches into healthcare systems represent major areas for targeted interventions for healthcare systems that are not limited to the management of SBO. These approaches can be extrapolated to nearly every clinical condition requiring acute inpatient care.

Understanding which elements of a guideline are well embraced—and which ones are poorly adopted—helps direct the content of iterative revisions and deployment approaches. Shifts in medical education to a 'free, open-access' approach, implementation tools linked to smart devices, 'just-in-time' digital platform training, podcasts, gamification, simulation, and manuscript infographics have largely supplanted traditional didactic-based education[35–37]. Guideline implementation should also incorporate such approaches, especially when compliance is voluntary, as opposed to being directed by a legal mandate that is tied to finances. Specific implementation tools may be ideally suited to drive voluntary compliance.

This study has several limitations that must be acknowledged to contextualize its findings and guide interpretation. As an observational cohort study, causal inferences regarding the impact of guideline adherence on outcomes are limited by the potential for unmeasured confounding. While adjustments were made for known predictors of adverse outcomes, such as laboratory and imaging findings, residual confounding from unmeasured factors, including frailty, time to intervention, or clinician decision-making heuristics, may persist. Variability in data collection across participating centres poses a potential limitation. Despite the use of a standardized protocol and rigorous data validation, differences in local resources, clinician training, and documentation practices could contribute to reporting bias. Patients with high rates of missing data were excluded, which may have introduced bias, by favouring institutions with a more robust data collection infrastructure. The study design assessed guideline compliance using both full compliance and partial compliance as measures, with the latter represented by an unweighted ordinal scale. While this approach captures degrees of adherence, it does not account for the potential heterogeneity in outcomes based on specific combinations of utilized elements in patients who received partially compliant care. For example, some elements may exert a greater influence on outcomes than others, a factor not tested in this analysis. Additionally, the absence of a weighted scoring system means that the relative contributions of individual elements to patient outcomes remain unexplored. This limitation highlights the need for future studies to investigate the impact of specific compliance patterns on clinical outcomes. The generalizability of findings to non-participating regions or healthcare systems is uncertain and requires further study. This study included a diverse range of institutions, but the distribution of academic *versus* non-academic centres, as well as resource variability, may not fully represent global practice patterns. While this analysis identified associations between guideline adherence, surgical intervention, and outcomes, the findings are subject to confounding by indication. Patients requiring surgery often present with more advanced disease, which may independently drive worse outcomes, complicating the interpretation of surgery as a predictor of adverse events.

Guidelines have often been created through consensus statements, reflecting evidence synthesis by a select group of invested content experts[38,39]. Medical professional societies, such as the European Society for Trauma and Emergency Surgery (ESTES) and the WSES, can enhance guideline creation

by ensuring that expert consensus panels are diverse regarding their composition. Inclusion of implementation scientists, healthcare administrators, nurses, and patient representatives alongside surgeons helps ensure that guidelines are pragmatic, patient-centred, and contextually relevant[15,40]. Furthermore, representation from low-, middle-, and high-resource settings is crucial for identifying context-specific implementation barriers. Interdisciplinary collaboration with emergency medicine, radiology, anaesthesia, and critical care specialists can address the entire inpatient care continuum. During evidence synthesis, integrating real-world data, such as registry findings and observational studies, alongside RCTs enhances the applicability of recommendations[15]. Future research should adopt a type 2 hybrid implementation-effectiveness design to prospectively evaluate targeted interventions aimed at enhancing Bologna guideline adherence (including, but not limited to, decision-support tools, audit-feedback mechanisms, and clinician education), while concurrently assessing their impact on patient outcomes and sustainability across diverse healthcare settings[41,42]. Clearly graded recommendations, transparent communication of evidence strength, and feasibility assessments during development help ensure that guidelines are evidence-informed and implementable[43,44].

The findings of SnapSBO's granular inquiry into the treatment of adhesive SBO at a patient level and across healthcare systems highlight significant discrepancies between evidence-informed expert recommendations and clinical practice. Guideline adherence was associated with shorter LOS and more frequent achievement of optimal outcomes. Nonetheless, overall compliance remained low, particularly in resource-constrained settings. Variations in healthcare infrastructure, clinician decision-making, and patient characteristics likely contribute to the identified evidence-to-practice gaps in the management of adhesive SBO. Addressing these challenges requires a multifaceted approach to ensure guidelines are implementable across diverse healthcare environments.

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The authors declare no conflict of interest.

Supplementary material

Supplementary material is available at *BJS* online.

Data availability

The data sets generated and analysed during this study are available from the corresponding author, on behalf of the study steering group, upon reasonable request.

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