

Supplementary Table 1 Treatment selection and evidence interpretation in acute arterial mesenteric ischaemia

Clinical decision	IR approach	Evidence sources	Evidence interpretation	Practice considerations
Endovascular versus open approach	Consider endovascular revascularisation first for embolic or thrombotic SMA occlusion in appropriately selected patients, when immediate bowel exploration is unnecessary and expertise is available ^[3,4,26,29] . Open or hybrid treatment remains necessary for urgent bowel assessment ^[3,4,26,29] .	ESVS recommendations 35 and 37 ^[3] CIRSE Standards of Practice ^[4] Murphy <i>et al</i> ^[51]	ESVS recommendation 37: Endovascular revascularisation should be considered as first-line therapy in patients with acute mesenteric ischaemia due to thrombotic or embolic superior mesenteric artery occlusion (Class IIa, Level B) ^[3] . ESVS recommendation 35: Revascularisation first before bowel resection should be considered in patients with acute mesenteric ischaemia (Class IIa, Level C) ^[3] . Consensus supports initial endovascular treatment in haemodynamically stable patients without peritonitis or transmural necrosis ^[4] . Systematic review of 13 observational retrospective studies including seven retrospective comparisons of endovascular and open treatment for thrombotic or embolic AMI. Thirty-day mortality following endovascular treatment ranged from 16% to 42%. Among the seven comparative studies included, mortality was 15%-39% with endovascular treatment versus 33%-50% with open revascularisation, and bowel resection rates were 14%-28% following	Multidisciplinary discussion between IR, vascular and gastrointestinal surgery recommended ^[3] . Consider endovascular intervention first in selected patients, although superior survival benefit is not proven ^[3,4] . Select the fastest effective intervention for reperfusion and bowel assessment. Prompt surgical assessment if peritoneal signs persist or

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			endovascular treatment versus 33%-63% following open treatment; however, these are ranges across studies, rather than pooled treatment-effect estimates. The comparative studies suggested lower mortality and bowel-resection rates following endovascular treatment, but heterogeneity and selection bias limit interpretation. The review classified the evidence as low quality. These findings do not establish causal superiority^[51].	clinical deterioration occurs ^[3,4,26,29] .
		Salsano <i>et al</i> ^[52]	Meta-analysis of seven retrospective studies comprising 3020 patients: 1322 treated by endovascular/hybrid techniques and 1698 by surgery. Endovascular/hybrid treatment was associated with lower in-hospital mortality (RR 0.68, 95% CI 0.59–0.79) and less bowel resection (RR 0.64, 95% CI 0.45–0.91). Data are exclusively retrospective and non-randomised, thus susceptible to substantial treatment-selection and confounding bias^[52].	
		Shi <i>et al</i> ^[53]	Meta-analysis of 11 retrospective comparative studies comprising 1141 patients: 303 initially treated by endovascular/hybrid revascularisation and 838 by open	

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			revascularisation. No statistically significant difference in in-hospital or 30-day mortality was identified (OR 0.79, 95% CI 0.50–1.25; $P = 0.31$). Endovascular/hybrid treatment was associated with less bowel resection (OR 0.42, 95% CI 0.20–0.88). All outcomes were graded as very-low-certainty evidence, limiting causal inference. Treatment selection bias, mixed mortality time points and inclusion of hybrid procedures limit interpretation^[53].	
Embolic proximal SMA occlusion	Aspiration thrombectomy is a feasible initial endovascular option for accessible main-trunk emboli when immediate laparotomy is unnecessary^[3,4,26,29]. Open embolectomy or hybrid aspiration is	ESVS^[3] CIRSE Standards of Practice^[4] Raupach <i>et al</i>^[54]	Favours aspiration thrombectomy as initial endovascular strategy when feasible; however, no separate graded recommendation establishing its superiority over other techniques^[3]. Consensus-based guidance supporting manual or mechanical aspiration for embolic AMI in appropriately selected patients, with selective adjunctive thrombolysis or stenting. Comparative patient-centred benefit remains unproven^[4]. Retrospective single-centre series of 37 patients with acute embolic SMA occlusion treated by aspiration-first	Consider aspiration thrombectomy in haemodynamically stable patients without evidence of peritonitis, when immediate laparotomy is unnecessary^[3,4]. Additional treatments may be necessary for residual thrombus or underlying stenosis^[3].

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	appropriate when exploration is required ^[3,4,26,29] .		thrombectomy and on-demand laparotomy; adjunctive thrombolysis and stenting were used in two patients each. Complete SMA main-stem recanalisation was achieved in 34/37 (91.9%); subsequent laparotomy occurred in 27/37 (73.0%), bowel resection in 15/37 (40.5%), and in-hospital mortality in 10/37 (27.0%). One fatal haemorrhagic complication was reported. Findings support the feasibility of rapid endovascular revascularisation with on-demand laparotomy. The small, uncontrolled retrospective cohort, absence of a comparator group, and exclusion of patients with severe peritonitis, shock or advanced intestinal ischaemia introduce selection bias and limit generalisability ^[54] .	Reassess for persistent pain, peritoneal findings or deterioration despite restored SMA flow, requiring prompt surgical management ^[3,4] . Available studies do not establish superiority of a specific thrombectomy technique for bowel preservation or survival.
		Shi <i>et al</i> ^[55]	Retrospective single-centre comparison of stent-retriever thrombectomy plus aspiration ($n = 14$) versus aspiration alone ($n = 27$). Technical success, defined by device/catheter deployment and retrieval, was 100% in both groups. Clinical success (defined as clot retrieval and flow restoration) did not differ significantly and was 11/14	

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			(78.6%) versus 21/27 (77.8%; $P = 1.00$). Combined treatment achieved greater complete main-trunk thrombus clearance (11/14 versus 12/27; $P = 0.04$), less adjunctive thrombolysis (2/14 versus 13/27; $P = 0.03$), and shorter mean hospital stay (5.7 versus 10.7 days; $P = 0.03$). Bowel resection (1/14 versus 4/27; $P = 0.84$) and 30-day mortality (4/14 versus 7/27; $P = 1.00$) did not differ significantly. Operator selection, combined technique and differing adjunctive treatments limit causal interpretation^[55].	
		Li <i>et al</i> ^[56]	Retrospective single-centre cohort of 41 patients with acute SMA embolism (14 endovascular-first; 27 open-first). Endovascular treatment achieved technical success in 13/14 (93%). Bowel resection was required in 5/14 (36%) versus 18/27 (67%) patients, while in-hospital mortality was 3/14 (21%) versus 9/27 (33%), respectively. Findings support the feasibility of an endovascular-first strategy in selected patients, but are limited by treatment selection bias^[56].	

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		Overall	Evidence supports feasibility rather than superiority of an endovascular-first approach over open surgery ^[3,29,54,56] .	
Atherosclerotic AMI or acute-on-chronic disease	Treat associated thrombus as required. Urgently restore inflow by recanalisation and stenting of the atherosclerotic lesion ^[3,4] . Consider retrograde open mesenteric stenting if the antegrade approach fails ^[3] .	ESVS recommendation 38 ^[3] CIRSE Standards of Practice ^[4] <i>Pedersoli et al</i> ^[69]	ESVS recommendation 38: Retrograde open mesenteric artery stenting may be considered in patients with acute mesenteric ischaemia needing superior mesenteric artery revascularisation when percutaneous stenting is not possible (Class IIb, Level C) ^[3] . Describes treatment of the underlying stenotic lesion after the removal of thrombus, with the treatment rationale being correction of atherosclerotic inflow that is untreated after thrombectomy alone ^[3] . Consensus-based technical guidance prioritising SMA recanalisation and stenting for atherosclerotic AMI, with CA treatment when SMA recanalisation is unsuccessful or infeasible ^[4] . Retrospective single-centre observational study of 40 patients with acute-on-chronic AMI of the proximal SMA and/or CA. Antegrade angioplasty and stent revascularisation achieved technical success (defined as	Select the approach according to anatomy, associated thrombus and clinical condition. If attempting antegrade endovascular recanalisation, confirm distal intraluminal position and treat the inflow stenosis during the same procedure as treatment of acute thrombus ^[3,4] . Escalate promptly if a calcified occlusion cannot be crossed ^[3,4] .

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			target-vessel patency, peripheral branch flow and residual stenosis < 30%) in 36/40 (90%). Thirty-day mortality was 25/40 (62.5%), and 25 patients (62.5%) subsequently underwent surgical exploration, of whom 12/25 (48%) required bowel resection. Selection bias, heterogeneous clinical severity and absence of a comparator group limit assessment of comparative patient benefit ^[69] .	
		Overall	Evidence for antegrade percutaneous stenting and retrograde open mesenteric stenting is predominantly retrospective, uncontrolled, and based on mixed anatomical targets and acuity of presentation. Available evidence supports technical feasibility, rather than superiority over an open surgical approach ^[3,4,69] .	
Residual thrombus after aspiration and role of CDT	Reassess the haemodynamic significance and location of residual clot. Options include	ESVS ^[3]	Describes local thrombolysis for incomplete aspiration thrombectomy or distal embolisation in patients without peritonitis; however, does not provide a separate graded recommendation establishing comparative patient benefit ^[3] .	There is no randomised comparison defining the optimal rescue sequence for residual thrombus after aspiration. Assess

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	further safe aspiration, selective CDT, another thrombectomy technique or anticoagulation for small peripheral residual emboli with sufficient collateral perfusion ^[3,4] . Use CDT selectively, particularly for incomplete aspiration, distal embolisation or inaccessible clot, without peritonitis or established infarction	CIRSE Standards of Practice ^[4] Najdawi <i>et al</i> ^[46]	Consensus-based technical guidance on selective CDT for residual thromboembolic material, inadequate flow or distally lodged thrombus. This guidance should be distinguished from comparative evidence of bowel preservation, survival or safety ^[4] . Single-centre retrospective cohort of 58 patients who underwent endovascular revascularisation for arterial AMI. Intra-arterial thrombolysis was used in 19/58 (33%), either alone or as part of a tailored multimodal endovascular strategy, with technical success reported as 89%, defined as partial or total arterial recanalisation assessed at 24 hours. Distal emboli not amenable to aspiration were treated with intra-arterial thrombolysis alone. Overall technical success was 51/58 (88%), with no significant difference in survival according to endovascular treatment technique; however, bowel resection and mortality were reported for the overall cohort rather than separately for CDT ^[46] .	contraindications and bleeding risk before CDT. Select infusion catheter according to clot location and vessel calibre. Repeat angiography should be performed every 12-24 hours to assess for thrombus dissolution ^[3,4] . Continue clinical assessment of bowel viability; angiographic improvement does not establish bowel recovery. New peritonitis, suspected bowel infarction or clinical deterioration requires

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	and with acceptable bleeding risk ^[3,4] .	Björnsson <i>et al</i> ^[68]	Multicentre observational cohort of 34 patients from 12 hospitals with acute SMA occlusion, without peritonitis, treated with local intra-arterial thrombolysis. Of the 34 patients, 28 had embolic and 6 had thrombotic SMA occlusion. Technically successful thrombolysis occurred in 30/34 (88.2%), comprising complete lysis in 14 and partial lysis with improved flow in 16. Adjunctive endovascular procedures were performed in 16/34 (47.1%), including aspiration in 10/34 (29.4%). Exploratory laparotomy occurred in 13/34 (38.2%) and bowel resection in 8/34 (23.5%). In-hospital mortality was 9/34 (26.5%); 30-day mortality was 8/34 (23.5%). Six self-limiting bleeding events affected five patients (14.7%). Small sample size, selected population, heterogeneous treatment and absence of an alternative-treatment comparator limit conclusions regarding CDT-specific safety or patient benefit ^[68] .	urgent surgical reassessment ^[4,29] . Infusion and anticoagulation regimens represent technical practice rather than an established optimal protocol.
		Shi <i>et al</i> ^[60]	Single-centre retrospective cohort of 47 patients with arterial AMI, treated with mechanical thrombectomy first (<i>n</i> = 29) or CDT-first (<i>n</i> = 18). Final angiographic success,	

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			defined as complete or partial recanalisation after adjunctive treatment, occurred in 26/29 versus 16/18. There were no significant differences in bowel resection (3/29 [10.3%] versus 3/18 [16.7%]; $P = 0.66$) or 30-day mortality (9/29 [31.0%] versus 6/18 [33.3%]; $P = 0.87$), although minor bleeding occurred only with CDT (0/29 versus 2/18 [11.1%]; $P = 0.14$). Factors such as operator selection, heterogeneous techniques, adjunctive treatment, and limited sample size preclude conclusions of equivalence or comparative superiority^[60].	
Distal embolic disease	Consider selective CDT for distal thrombus associated with inadequate perfusion when aspiration is unsuitable and thrombolysis is	ESVS ^[3] CIRSE Standards of Practice ^[4]	Describes local thrombolysis for distal embolisation without peritonitis and conservative heparin treatment for small peripheral residual emboli where collateral circulation may provide sufficient perfusion. Narrative statements with no comparative patient benefit^[3,67]. Consensus-based technical guidance on selective CDT for distally lodged thrombus, residual thromboembolic material or inadequate blood flow^[4].	Treatment should be based on residual clot location, distal perfusion, bleeding risk and clinical findings ^[3,4] . Consider observation if satisfactory perfusion and clinical stability, with prompt

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	clinically appropriate ^[3,4,67] . Small residual peripheral emboli with adequate collateral supply may be treated with heparin and close observation ^[3,4,67] .	Acosta <i>et al</i> ^[67] Overall	Retrospective single-centre series of 21 patients, including 10 with embolic SMA occlusion. Residual emboli remained after satisfactory aspiration in seven patients, two of whom also received thrombolysis; one required bowel resection. Small sample size, heterogeneous treatment and absence of a comparator group support selective technical and clinical judgement, but do not establish the safety or comparative benefit of observation or anticoagulation alone ^[67] . Guidance is anatomically reasoned and supported by small uncontrolled series only ^[3,4,46,68] .	surgical reassessment if deterioration ^[3,4] .
Aspiration thrombectomy	Consider manual syringe or a powered aspiration system to remove accessible proximal emboli. Reassess residual thrombus and distal perfusion before	ESVS ^[3] CIRSE Standards of Practice ^[4]	Describes aspiration thrombectomy and selective thrombolysis for incomplete clearance or distal embolisation; no separate graded recommendation establishes superiority of a named device ^[3] . Provides consensus-based technical guidance on manual and mechanical aspiration, with selective adjunctive thrombolysis for residual thrombus or inadequate flow, and stenting for underlying stenosis. Device-specific	Available evidence evaluating manual syringe aspiration and mechanical aspiration in arterial AMI remains limited, and does not establish superiority or equivalence. Technique

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	selecting adjunctive treatment ^[3,4] .		comparative benefit requires assessment of the supporting primary studies ^[4] .	selection should therefore be individualised with respect to vascular anatomy, thrombus characteristics, operator experience and device availability.
		Garzelli <i>et al</i> ^[62]	Retrospective single-centre comparison of manual aspiration ($n = 16$) versus Indigo powered aspiration ($n = 15$). Reported technical success was 13/16 (81%) versus 11/15 (73%); bowel resection occurred in 7/16 (43.8%) versus 6/15 (40.0%; $P = 0.99$); 30-day survival was 15/16 (93.8%) versus 12/15 (80.0%; adjusted $P = 0.14$), respectively. Adjunctive thrombolysis or stenting was used in 8/16 versus 10/15. Small sample size, operator-selected treatment and frequent adjunctive techniques limit interpretation. Results are descriptive and do not establish superiority or equivalence ^[62] .	Angiographic outcomes should be distinguished from bowel preservation and survival. Consider observation if perfusion is satisfactory and the patient is clinically stable, with prompt surgical reassessment if deterioration ^[3,4] .
		Li <i>et al</i> ^[65]	Retrospective single-centre uncontrolled series of 15 patients with acute SMA embolism. Complete thrombus removal was reported in 15/15 using the Indigo aspiration system; additional CAT RX distal-branch aspiration was used in 5/15. No adjunctive thrombolysis or stenting was required. Bowel resection occurred in 3/15 (20.0%); in-	

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			hospital mortality was 1/15 (6.7%). No intraoperative vessel perforation or dissection was reported. Small sample size, short follow-up and absence of a comparator limit assessment of safety and comparative patient benefit ^[65] .	
		Overall	Most reports are small, retrospective and uncontrolled. Definitions of technical success range from flow restoration to complete clot removal. Adjunctive thrombolysis/stenting and bowel surgery make it difficult to attribute success to mechanical thrombectomy alone.	
Stent retrievers and other thrombectomy devices	Consider stent-retriever thrombectomy with aspiration as a selected adjunct or rescue technique ^[4] . Rheolytic or rotational systems are alternative mechanical options,	Shi <i>et al</i> ^[63]	Retrospective uncontrolled series of nine patients with arterial AMI treated with Solitaire AB stent-retriever thrombectomy combined with manual aspiration. Device technical success (defined as successful device deployment and retrieval) was achieved in 9/9 (100%) and successful embolus retrieval/SMA recanalisation in 7/9 (77.8%). Adjunctive stenting was performed in 3/9 (33.3%). Final recanalisation reported in 9/9. Bowel resection: 0/9; reported device-related complications or distal embolisation: 0/9; in-hospital mortality: 1/9 (11.1%).	These small retrospective series demonstrate the technical feasibility of mechanical thrombectomy for AMI; however, the evidence remains limited to non-randomised, single-centre case series with small sample sizes,

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	including when thrombolysis is unsuitable; they are not supported as universally preferred first-line devices ^[4] .	Shi <i>et al</i> ^[55]	Supports feasibility of the combined strategy, without establishing comparative benefit or reliable safety estimates ^[63] . Single-centre retrospective cohort of 41 patients with acute embolic mesenteric ischaemia who underwent stent thrombectomy plus aspiration or aspiration alone. Stent thrombectomy plus aspiration ($n = 14$) and aspiration alone ($n = 27$) achieved similar clinical success (11/14 [78.6%] versus 21/27 [77.8%]; $P = 1.00$). Combined stent thrombectomy and aspiration achieved higher complete SMA clot clearance (11/14 [78.6%] versus 12/27 [44.4%]; $P = 0.04$), reduced the requirement for adjunctive local thrombolysis (2/14 [14.3%] versus 13/27 [48.1%]; $P = 0.03$), and shortened hospital stay ^[55] .	heterogeneous devices and adjunctive therapies, substantial selection bias, and no robust comparator groups. Consequently, they cannot establish clinical efficacy, safety, or superiority over alternative endovascular or surgical strategies ^[55,63] .

Outcomes and denominators are reported as provided in the cited studies; endpoint definitions, follow-up periods and adjunctive treatments vary, precluding direct comparison across studies. ESVS recommendations refer to the ESVS 2025 clinical practice guidelines on the management of diseases of the mesenteric and renal arteries and veins^[3]; CIRSE recommendations refer to the CIRSE standards of practice for the interventional radiology management of acute and chronic arterial mesenteric ischaemia^[4]. Recommendation classes and evidence levels are reproduced from ESVS: I, recommended; IIa, should be considered; IIb, may be considered; B, evidence from a single randomised trial or

large non-randomised studies; C, expert consensus and/or small studies, retrospective studies or registries. CIRSE statements are standards of practice and are not assigned ESVS recommendation grades.

AMI: Acute mesenteric ischaemia; CA: Coeliac artery; CDT: Catheter-directed thrombolysis; CI: Confidence interval; CIRSE: Cardiovascular and Interventional Radiological Society of Europe; ESVS: European Society for Vascular Surgery; IR: Interventional radiology; OR: Odds ratio; RR: Risk ratio; SMA: Superior mesenteric artery.

Supplementary Table 2 Treatment selection and evidence interpretation in chronic arterial mesenteric ischaemia

Clinical decision	IR approach	Evidence sources	Evidence interpretation	Practice considerations
Endovascular versus open approach	Endovascular approach should be considered first when revascularisation is indicated and anatomy is suitable. Consider open revascularisation in fit patients, after failed endovascular treatment, or when endovascular treatment is not feasible or contraindicated ^[3,4] .	ESVS recommendations 14 and 19 ^[3] CIRSE Standards of Practice ^[4] Alahdab <i>et al</i> ^[73]	ESVS recommendation 14: Endovascular first approach is the preferred treatment strategy in patients with suitable anatomy (Class I, Level B) ^[3] . ESVS recommendation 19: Open revascularisation should be considered in fit patients, after failed endovascular treatment, or when endovascular intervention is not feasible or is contraindicated (Class IIa, Level C) ^[3] . Consensus-based guidance supporting primary endovascular treatment, while acknowledging uncertainty regarding long-term stent patency relative to surgery and the need for further comparative evidence ^[4] . Systematic review and meta-analysis of 100 observational studies including 18726 patients; 22 comparative studies, comparing endovascular treatment with open surgery. Higher in-hospital	Consider primary endovascular revascularisation for symptomatic CMI ^[3,4] . Assess lesion length, calcification, tandem disease and flush ostial occlusion when judging endovascular feasibility; however, complex anatomy does not necessarily preclude treatment ^[71] . Consider open revascularisation in fit patients following failed endovascular treatment or when it is not feasible or

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			complications with open surgery compared with endovascular (RR 2.19, 95% CI 1.84–2.60), no significant difference in 30-day mortality (RR 1.57, 95% CI 0.84–2.93) or three-year survival (RR 0.96, 95% CI 0.86–1.07), and less symptom recurrence within three years with open surgery (RR 0.47, 95% CI 0.34–0.66). Author-rated certainty was low for complications and recurrence, and very low for mortality outcomes^[73].	contraindicated^[3]. Balance procedural burden against expected durability, surgical fitness and likelihood of reintervention. Discuss symptom recurrence and surveillance with either approach^[3,4].
		Erben <i>et al</i> ^[95]	Retrospective US National Inpatient Sample analysis, 2000–2014: 10920 endovascular versus 4555 open revascularisation admissions. Endovascular treatment was associated with lower in-hospital mortality (2.4% versus 8.7%) and shorter mean admission (6.3 versus 14.0 days; both $P < 0.0001$). Open treatment remained associated with higher mortality after adjustment (OR 7.2, 95% CI 4.9–10.6) and admission longer by 9.7 days. Administrative coding, residual confounding	

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			and absent post-discharge follow-up limit causal and long-term comparative interpretation ^[95] .	
		Tallarita <i>et al</i> ^[96]	Retrospective single-centre cohort of 343 patients with atherosclerotic CMI: 187 open and 156 endovascular revascularisations. Propensity matching yielded 127 patients per group; estimated five-year survival did not differ significantly (60% versus 57%; $P = 0.7$). Residual confounding, exclusion of unmatched patients, differing treatment eras and longer follow-up after open surgery limit interpretation. Survival equivalence not established ^[96] .	
Target vessel decision	SMA is the principal target. Consider CA treatment when SMA recanalisation is unsuccessful or unsuitable;	ESVS recommendations 9 and 10 ^[3]	ESVS recommendation 9: Revascularisation is recommended in patients with multivessel occlusive mesenteric artery disease and chronic mesenteric ischaemia (Class I, Level B) ^[3] . ESVS recommendation 10: Revascularisation of at least the superior mesenteric artery is recommended for patients with	Consider SMA as the principal target vessel ^[3] . Assess collateral arcades, technical feasibility and territory-specific ischaemia ^[3] . Consider

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	additional CA treatment is individualised. IMA treatment is a selected alternative, addressed separately below ^[3,4] .	CIRSE Standards of Practice^[4] Malgor <i>et al</i>^[102] Overall	multivessel occlusive mesenteric artery disease and chronic mesenteric ischaemia (Class I, Level C)^[3]. Consensus-based guidance identifying the SMA as the primary target and describing CA treatment when SMA recanalisation is unsuccessful or unsuitable^[4]. Retrospective cohort of 101 patients: SMA stenting alone ($n = 61$), combined SMA/CA stenting ($n = 24$) and CA-only stenting ($n = 16$). Combined CA and SMA stenting did not reduce recurrence or reintervention compared with SMA stenting alone. Operator preference accounted for 18/24 two-vessel procedures; other indications included residual SMA stenosis/dissection and severe gastric ischaemia. Findings did not establish equivalence or exclude benefit from selective additional CA treatment^[102]. No compelling comparative evidence establishes superiority between routine single-vessel and two-vessel intervention. Small, non-randomised groups	additional CA treatment in selected patients with severe gastric ischaemia and inadequate CA-SMA collaterals ^[3] .

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			and differences in anatomy limit causal interpretation ^[3,102] .	
Symptomatic single vessel SMA disease	Consider revascularisation for CMI attributable to isolated SMA disease. Establish concordance between symptoms and severe stenosis; avoid using stenosis alone as an indication for intervention ^[3,4] .	ESVS recommendations 2 and 11 ^[3] CIRSE Standards of Practice ^[4] van Dijk <i>et al</i> ^[97]	ESVS recommendation 2: CMI may be considered in patients with chronic abdominal symptoms and > 70% isolated SMA stenosis (Class IIb, Level C) ^[3] . ESVS recommendation 11: Revascularisation should be considered in patients with chronic mesenteric ischaemia due to isolated superior mesenteric artery disease (Class IIa, Level C) ^[3] . Consider intervention in symptomatic patients with > 70% stenosis of either the SMA or CA ^[4] . Retrospective single-centre cohort in which 37/59 evaluated patients underwent revascularisation after multidisciplinary diagnosis and positive mucosal ischaemia testing; eligibility included ≥ 50% isolated atherosclerotic stenosis. Sustained symptom relief was reported in 27/37 (73%) after a mean follow-up of five years. Symptom response did not differ significantly	Exclude alternative gastrointestinal diagnoses and involve specialist multidisciplinary assessment prior to considering intervention ^[3] .

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			between CA and SMA disease (22/30 versus 5/7; $P = 0.919$). Retrospective design and the absence of an untreated comparator group limit assessment of comparative benefit ^[97] .	
Symptomatic multivessel disease	Revascularise confirmed symptomatic multivessel atherosclerotic CMI, including at least the SMA when feasible. Routine treatment of all diseased vessels is not established ^[3,4] .	ESVS recommendations 1, 9 and 10 ^[3] CIRSE Standards of Practice ^[4]	ESVS recommendation 1: Chronic mesenteric ischaemia is considered present in patients with chronic abdominal symptoms and > 50% stenosis of the superior mesenteric artery and > 50% in another mesenteric artery (Class I, Level C) ^[3] . ESVS recommendation 9: See “Target vessel decision” above ^[3] . ESVS recommendation 10: See “Target vessel decision” above ^[3] . Consensus-based guidance supporting treatment of symptomatic severe single-vessel disease after ensuring symptom and imaging concordance and excluding alternative diagnoses, with functional testing considered where appropriate. SMA stenosis greater than 50% is considered haemodynamically	Involve specialist multidisciplinary assessment prior to considering intervention ^[3] . A > 70% SMA threshold for intervention should not be considered universally necessary in multivessel disease ^[4] . Consider treatment of SMA stenosis > 50% in symptomatic patients

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			relevant when multiple mesenteric arteries are stenosed, with treatment recommended in symptomatic patients with multivessel disease and > 50% SMA stenosis ^[4] .	with multi-vessel disease ^[4] .
		Terlouw <i>et al</i> ^[72]	Higher clinical success after revascularisation was reported in multivessel than single-vessel atherosclerotic disease, with success reflecting symptom improvement or resolution at three month follow-up, which also informed diagnostic confirmation of CMI. Findings support careful patient selection but do not establish that treating multiple vessels provides greater benefit than treating a single target vessel ^[72] .	
IMA intervention	Consider IMA angioplasty/stenting as a salvage	ESVS guidelines ^[3]	Discusses limited case-series evidence. No separate graded recommendation addresses IMA intervention ^[3] .	Selected salvage use is supported by technical feasibility and reported

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	procedure to augment collateral circulation when SMA/CA revascularisation is unsuccessful or not feasible ^[3,4] .	CIRSE Standards of Practice ^[4] Wohlauer <i>et al</i> ^[104] Feldman <i>et al</i> ^[105] Nair <i>et al</i> ^[106]	Consensus-based guidance describing IMA stenting as an option to improve collateral circulation when CA/SMA occlusions cannot be adequately recanalised ^[4] . Four patient case series, all of which were treated with salvage IMA angioplasty and stenting. Subsequent in-stent angioplasty in one patient and multivessel bypass for recurrent symptoms in another despite a patent IMA stent ^[104] . Five patient case series mixing both chronic and acute-on-chronic presentations and open/endovascular treatment with limited long-term follow-up. Four patients underwent endovascular repair. Subsequent CA/SMA revascularisation in some patients and one 30-day death highlight heterogeneous outcomes ^[105] . Retrospective eight-patient series reporting complete resolution of symptoms in four patients post IMA stenting, while three developed recurrent symptoms	symptom relief, without demonstrated comparative benefit ^[3,4,104-106] .

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			during a median follow-up of 18 months. Limited long-term follow-up ^[106] .	
Primary stenting versus angioplasty	Primary mesenteric stenting rather than balloon angioplasty alone is recommended for atherosclerotic CMI requiring endovascular treatment, particularly ostial lesions ^[3,4] .	ESVS recommendation 15 ^[3] CIRSE Standards of Practice ^[4] Nana <i>et al</i> ^[94]	ESVS recommendation 15: Routine mesenteric artery stenting as opposed to plain balloon angioplasty is recommended in patients with chronic mesenteric ischaemia (Class I, Level C) ^[3] . No prospective data available comparing angioplasty alone to primary stenting ^[3] . Stenting as standard treatment. Recommendation based on 2020 multidisciplinary European guidelines on the management of CMI ^[85] . Systematic review of 16 retrospective studies including 1224 patients and 1368 target vessels, which reported a pooled technical success of 95%, immediate symptom relief in 87% and 30-day mortality of 2%. Only 90 procedures included in the review were angioplasty alone. This principally described endovascular outcomes, rather than a comparison of	Primary stenting is currently recommended; however superior long-term clinical outcomes over angioplasty alone have not been established prospectively ^[3,4,94] .

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			stenting versus angioplasty, demonstrating the predominant adoption of stenting; however, it did not prove superiority over angioplasty. The recommendation rests on retrospective evidence and the technical rationale of limiting ostial recoil and residual stenosis ^[94] .	
Bare metal stent versus covered stent	Consider a covered stent for lesions < 25 mm when no significant side branch will be covered. A bare-metal stent may be considered for longer lesions or when landing beyond significant branches is required ^[3,4] .	ESVS recommendations 16 and 17 ^[3]	ESVS recommendation 16: Covered stents should be considered for lesions shorter than 25 mm in patients with chronic mesenteric ischaemia requiring mesenteric artery stenting, if no significant side branches are covered (Class IIa, Level B). Recommendation based on CoBaGI multicentre randomised controlled trial ^[3] . ESVS recommendation 17: Bare metal stents may be considered for lesions longer than 25 mm and/or those required to land beyond any significant side branches in patients with chronic mesenteric ischaemia requiring mesenteric artery stenting (Class IIb, Level C). Consensus opinion recommendation ^[3] .	Consider a covered stent for CA/SMA lesions < 25 mm ^[3,4,109] . Use of bare metal stents for longer/branch-crossing lesions is consensus-based, not a proven comparative advantage ^[3,109] .

Clinical decision	IR approach	Evidence sources	Evidence interpretation	Practice considerations
		CIRSE Standards of Practice ^[4]	Covered stent recommended over bare metal stent, with recommendation derived from the results of CoBaGI trial ^[4,109] .	
		CoBaGI trial ^[109]	Multicentre randomised trial of 94 patients: 47 patients received 62 stents in the covered-stent group and 47 received 66 stents in the bare-metal group. At 24 months, primary patency among stents with available observations was 42/52 (81%) versus 26/53 (49%; OR 4.4, 95% CI 1.8–10.5). Reintervention occurred in 11/62 (18%) versus 22/66 (33%) stents ($P = 0.041$). Procedure-related adverse events occurred in 17/47 (36%) versus 9/47 (19%) patients ($P = 0.065$); equivalent safety was not established. Findings support improved patency in selected short lesions, without establishing a survival benefit ^[109] .	
Post-procedural	Consider aspirin plus clopidogrel for a short course after	ESVS recommendation 18 ^[3]	ESVS recommendation 18: DAPT for at least one month may be considered after endovascular	Optimal regimen and duration remain uncertain. Consider

Clinical decision	IR approach	Evidence sources	Evidence interpretation	Practice considerations
antiplatelet therapy	stenting, following bleeding risk assessment ^[3,4] .	CIRSE Standards of Practice ^[4]	revascularisation for atherosclerotic mesenteric artery disease (Class IIb, Level C; consensus) ^[3] . Consensus-based practice describing one month of DAPT followed by lifelong antiplatelet monotherapy, extrapolated from other arterial territories ^[4] .	DAPT for one month, followed by lifelong antiplatelet monotherapy, following bleeding risk assessment ^[3,4] . Short-course DAPT reflects consensus opinion and extrapolation from other arterial territories ^[3,4] .
		Nana <i>et al</i> ^[94]	Observational study-level meta-regression found no significant outcome differences between reported SAPT and DAPT regimens. Retrospective data and incomplete reporting of bleeding and adherence preclude conclusions of equivalence or identification of an optimal regimen ^[94] .	
		Overall	No dedicated randomised mesenteric-stent trial establishes the optimal regimen or duration. Short-course DAPT reflects consensus and extrapolation from other arterial territories ^[3,4] .	

Clinical decision	IR approach	Evidence sources	Evidence interpretation	Practice considerations
Restenosis and reintervention	Consider endovascular treatment first for symptomatic restenosis. Treatment of selected asymptomatic > 70% restenosis may be considered ^[3] .	ESVS recommendations 24 and 25 ^[3] Tallarita <i>et al</i> ^[113]	ESVS recommendation 24: For symptomatic restenosis, endovascular treatment should be considered first (Class IIa, Level C) ^[3] . ESVS recommendation 25: For asymptomatic restenosis > 70%, treatment may be considered (Class IIb, Level C; consensus) ^[3] . Retrospective 30-patient reintervention cohort: 26 endovascular and 4 open. Symptom improvement occurred in 22/24 symptomatic patients; complications in 7/26 endovascular patients. One procedure-related death occurred 57 days after repeat stenting for AMI. At mean 29-month follow-up, further restenosis occurred in 15/30 and another intervention in 7/30 ^[113] .	Distinguish imaging restenosis from symptomatic recurrence. Individualise reintervention; routine treatment of asymptomatic restenosis is not established ^[3,113] .

Outcomes and denominators are reported as provided in the cited studies; endpoint definitions, follow-up periods and adjunctive treatments vary, precluding direct comparison across studies. ESVS recommendations refer to the ESVS 2025 clinical practice guidelines on the management of diseases of the mesenteric and renal arteries and veins^[3]; CIRSE recommendations refer to the CIRSE standards of practice for the interventional radiology management of acute and chronic arterial mesenteric ischaemia^[4]. Recommendation classes and evidence levels are

reproduced from ESVS: I, recommended; IIa, should be considered; IIb, may be considered; B, evidence from a single randomised trial or large non-randomised studies; C, expert consensus and/or small studies, retrospective studies or registries. CIRSE statements are standards of practice and are not assigned ESVS recommendation grades.

AMI: Acute mesenteric ischaemia; CA: Coeliac artery; CI: Confidence interval; CIRSE: Cardiovascular and Interventional Radiological Society of Europe; CMI: Chronic mesenteric ischaemia; CoBaGI: Covered versus bare-metal stenting of the mesenteric arteries in patients with chronic mesenteric ischaemia; DAPT: Dual antiplatelet therapy; ESVS: European Society for Vascular Surgery; IMA: Inferior mesenteric artery; IR: Interventional radiology; OR: Odds ratio; RR: Risk ratio; SAPT: Single antiplatelet therapy; SMA: Superior mesenteric artery.