Damage Control for Acute Diverticulitis

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ESCP European Society of COLOPROCTOLOGY

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COLON & RECTAL 27 – 29 AUG 2025 HILTON HELIOPOLIS

4th Beyond Europe Masterclass
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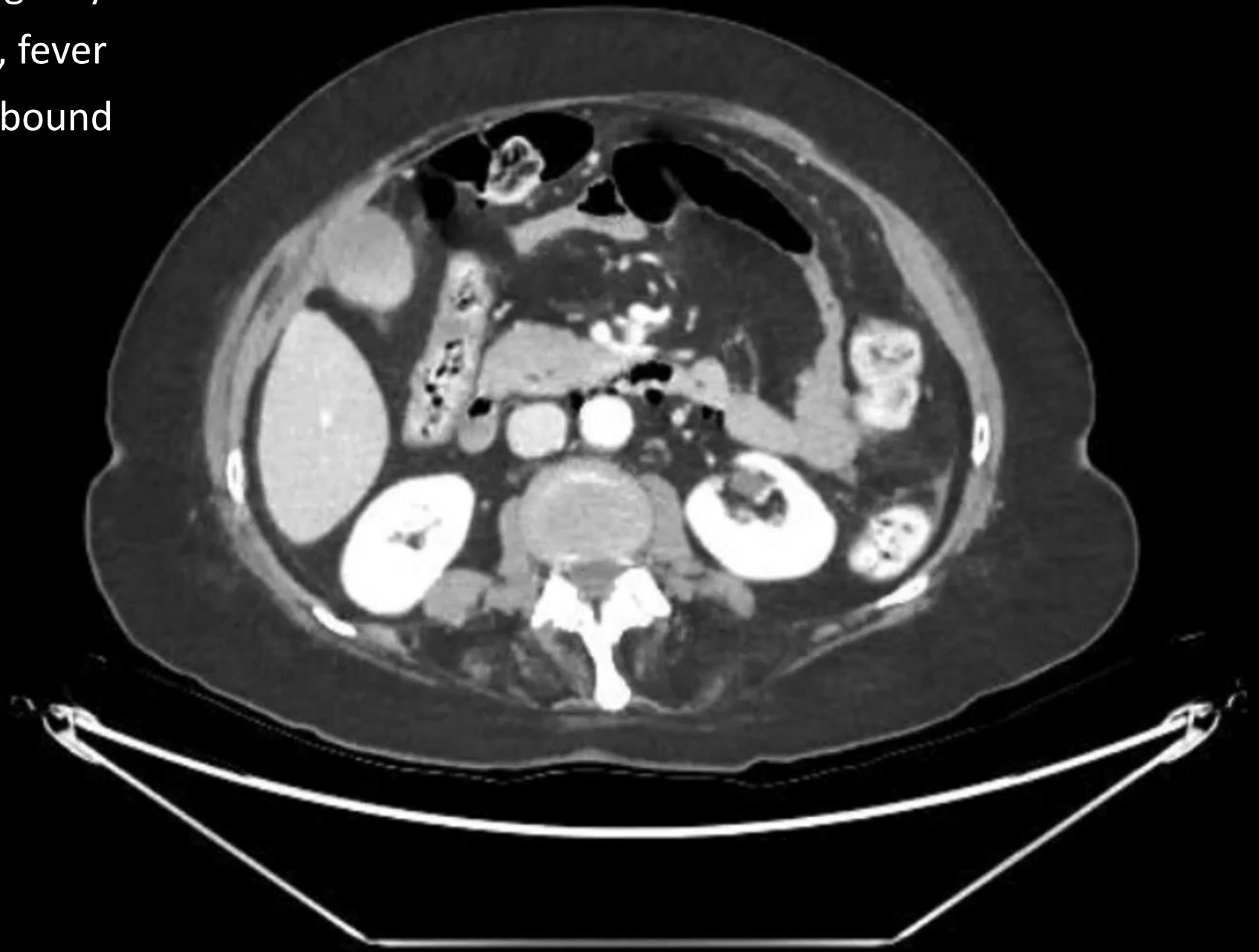
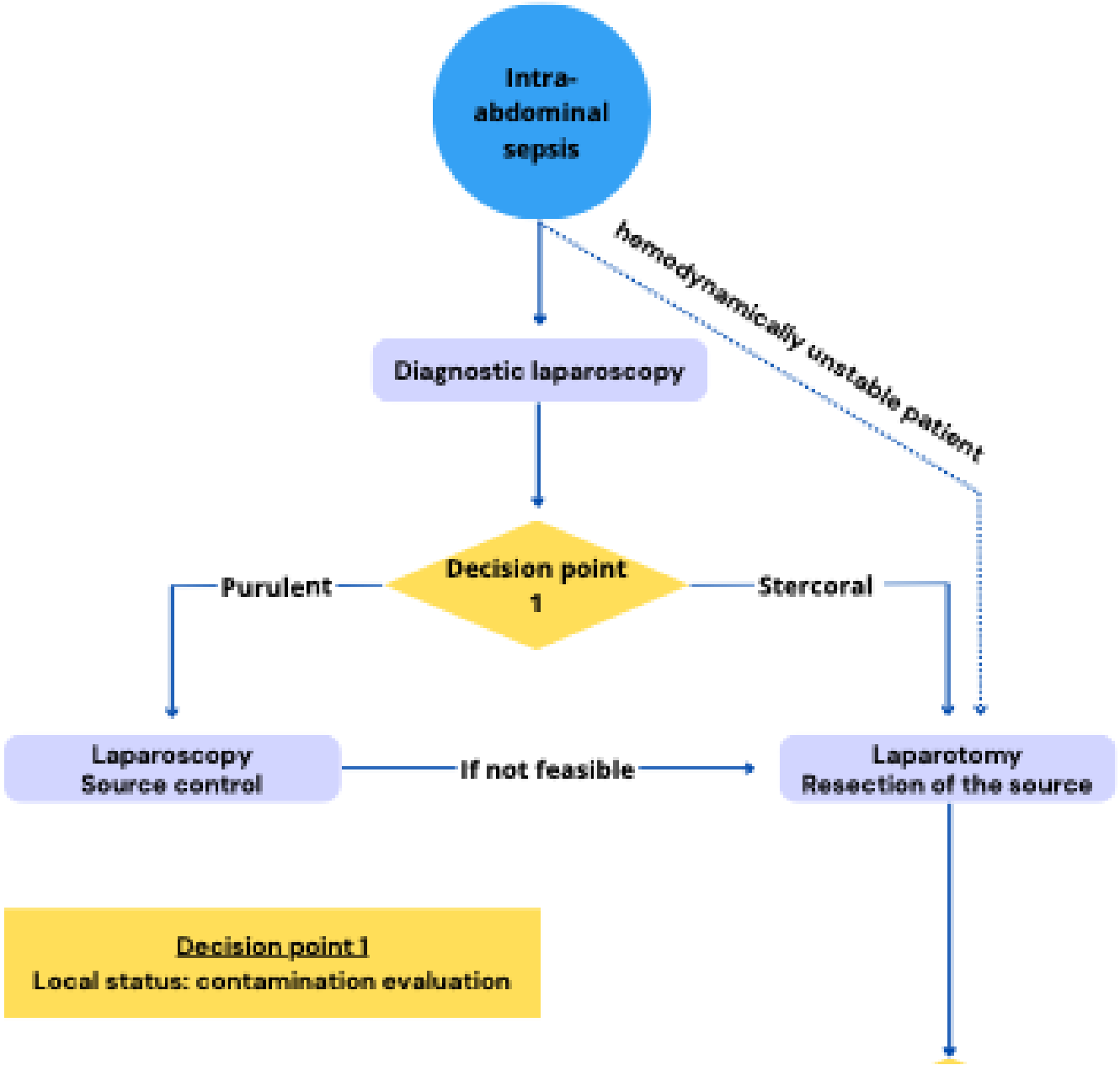
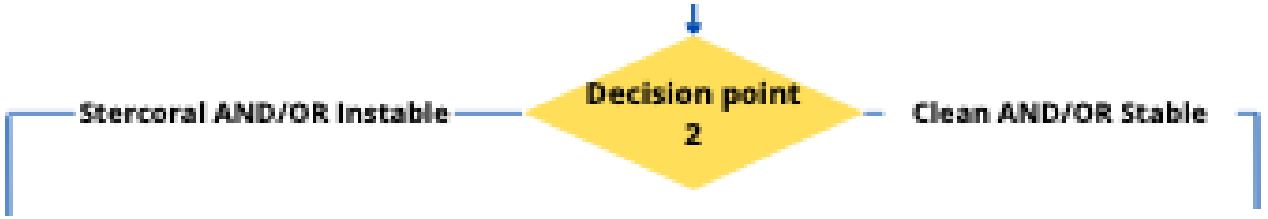
70yrs female, emergency

LLQ pain for 3 days, fever

Tenderness LLQ, rebound




Intra-abdominal sepsis
Hemodynamically unstable patient
Diagnostic laparoscopy
Decision point 1
Purulent
Stercoral
Laparoscopy
Source control
If not feasible
Laparotomy
Resection of the source
Decision point 1
Local status: contamination evaluation



Decision points 2 and 3

Local status: contaminated ?

Patient status ?

- **Noradrenaline > 10 mcg/min**
- **pH < 7.35**
- **BE < –2 mEq/l**
- **Lactate > 2.44 mmol/L**

Intraoperative hemodynamic parameters

- Arterial blood gas values:
  - pH: 7.38 (7.35-7.45)
  - Lactates: 2.94 (0.5-2.2 mmol/l)
  - Base Excess (BE): -7.3 (-2 – 2 mEq/l)
- Norepinephrine: 15 mcg/min

Hemodynamic criteria for anastomosis:

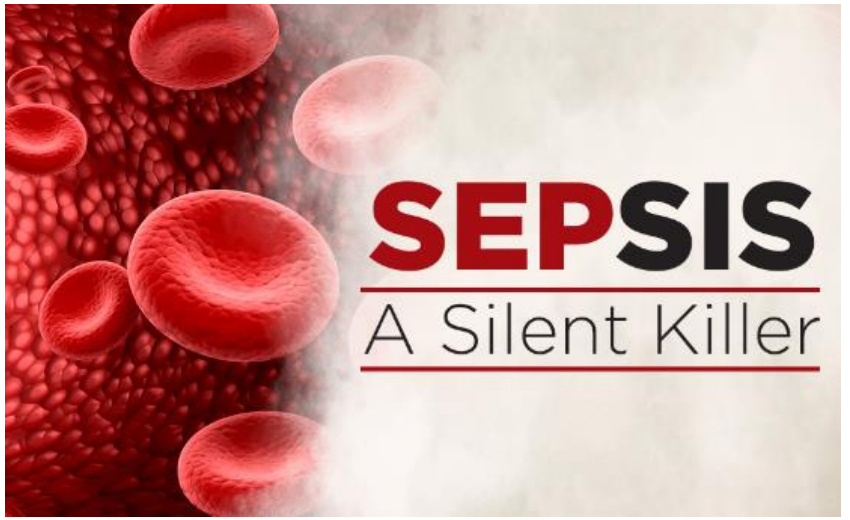
- Arterial blood gas values:
  - pH > 7.35
  - Lactates < 2.44 mmol/l
  - BE > -2 mEq/l
- Norepinephrine < 10 mcg/min

Mortality and Morbidity After Hartmann's Procedure Versus Primary Anastomosis Without a Diverting Stoma for Colorectal Perforation: A Nationwide Observational Study

Asuka Tsuchiya[1,2] · Hideo Yasunaga[1] · Yusuke Tsutsumi[2] · Hiroki Matsui[1] · Kiyohide Fushimi[3]

Table 4 Subgroup analyses of 30-day mortality in propensity score-matched groups

	Matched groups					
	Primary anastomosis		Hartmann's procedure		Risk difference, %	95% confidence interval
	%	No. of deaths/ total no.	%	No. of deaths/ total no.		
Age, years						
15–59	1.6	8/503	1.2	7/567	0.4	(−1.2 to 2.0)
60–69	4.1	22/542	4.2	22/519	−0.2	(−2.7 to 2.3)
70–79	8.4	70/835	7.5	60/804	0.9	(−1.7 to 3.6)
≥80	18.4	169/920	13.9	126/910	4.5	(1.2 to 7.9)
Sex						
Male	8.4	122/1460	7.0	102/1463	1.4	(−0.6 to 3.3)
Female	11.0	147/1340	8.5	113/1337	2.5	(0.3 to 4.8)
Etiology						
Diverticular disease	4.2	36/862	4.5	40/894	−0.3	(−2.2 to 1.6)
Colon carcinoma	9.8	61/624	7.4	45/610	2.4	(−0.7 to 5.6)
Inflammatory bowel disease	0.0	0/22	0.0	0/15	0	(−20.4 to 14.9)
Iatrogenic or foreign objects	0.0	0/13	7.1	1/14	−7.1	(−31.5 to 16.4)
Ischemic disease	29.7	19/64	20.4	11/54	9.3	(−6.6 to 24.1)
Ileus	11.0	10/91	11.4	9/79	−0.4	(−10.5 to 9.2)
Data not provided	12.7	143/1124	9.6	109/1134	3.1	(0.5 to 5.7)
Peritonitis	9.9	203/2056	7.8	162/2071	2.1	(0.3 to 3.8)
Mechanical ventilation (day 1)	22.0	75/341	19.2	58/302	2.8	(−3.5 to 9.0)
Vasopressor (day 1)	18.6	227/1218	14.6	171/1175	4.1	(1.1 to 7.1)
Blood transfusion (day 1)	19.0	123/648	15.3	93/608	3.7	(−0.5 to 7.8)
Glucocorticoid (day 1)	18.7	87/466	13.4	61/455	5.3	(0.5 to 10.0)



30d mortality

HP 7.7%. vs. **9.6% PA**

(risk diff 1.9%)

Prospensitiy score matched

WJS 2018

Rate of stoma formation following damage-control surgery for severe intra-abdominal sepsis: a single-centre consecutive case series

Seraina Faes, Martin Hübner, Timothée Girardin, Nicolas Demartines and Dieter Hahnloser*

BJS open 2021

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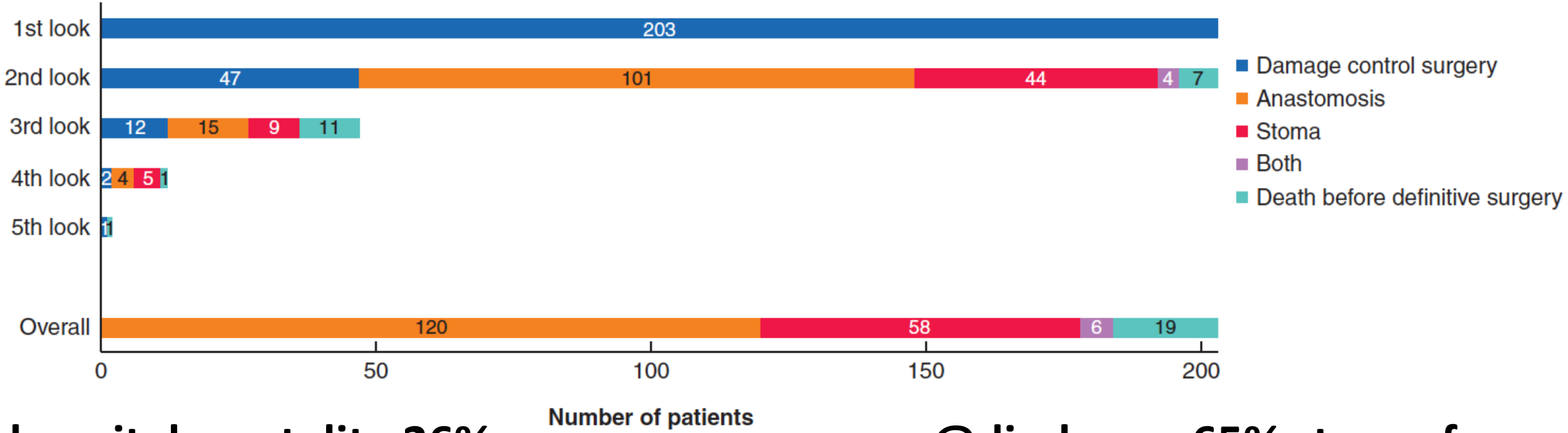
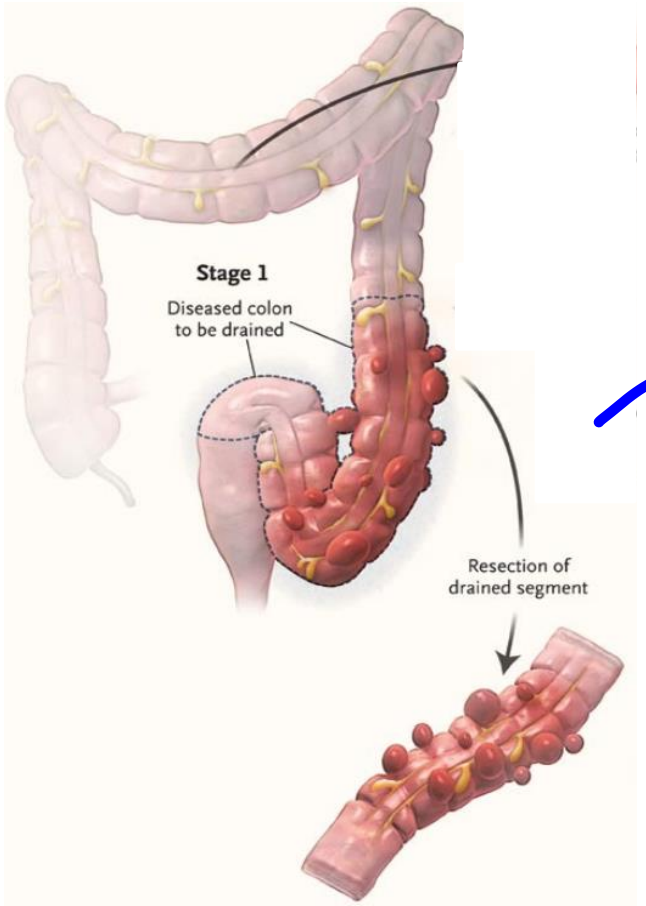


In-hospital mortality 26%

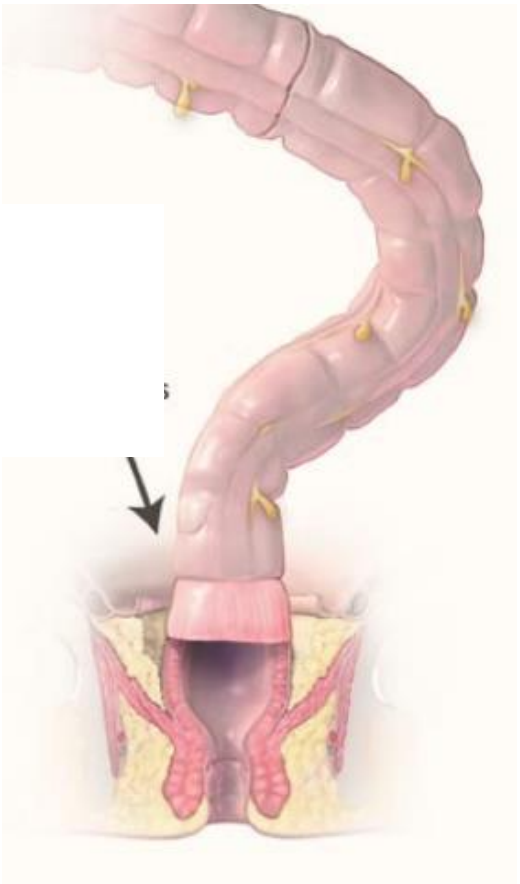
@discharge 65% stoma-free

BJS open 2021

Damage Control



Stabilisation of patient



<u>Secondary Anastomosis</u>

62-83% of surviving patients

Covering ileostomy 6.9%

Overall anastomotic leak 7.3%

Sohn M, World J Surg 2018
Tartaglia D, World J Emerg Surg 2019
Sohn M, BMC Surgery 2021
Cirocchi R, Int J Colorectal Dis 2021
Nascimbeni R, Tech Coloproctol 2021

The role of damage control surgery in the treatment of perforated colonic diverticulitis: a systematic review and meta-analysis

62% No stoma

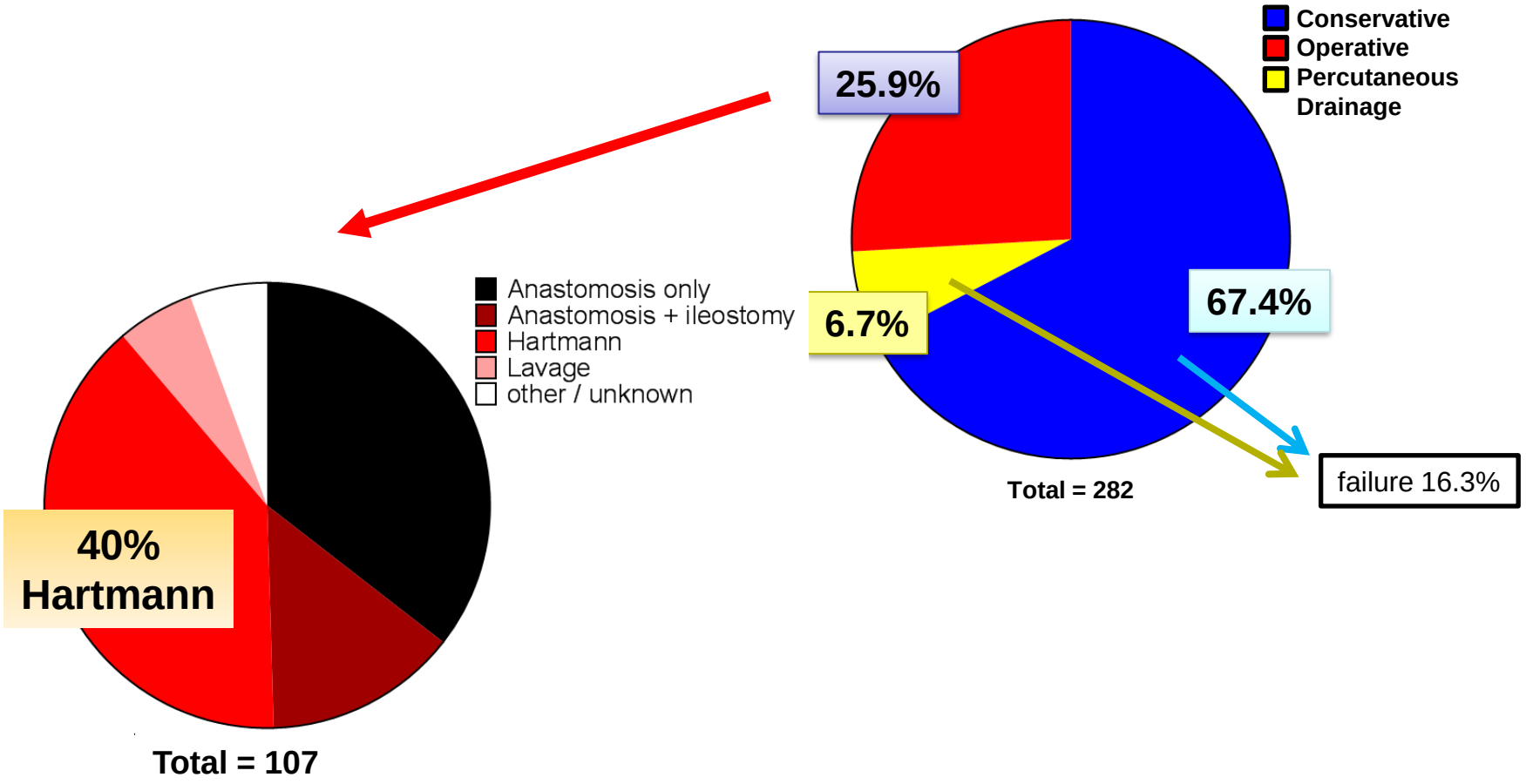
Roberto Cirocchi[1] · Georgi Popivanov[2] · Marina Konaktchieva[3] · Sonia Chipeva[4] · Guglielmo Tellan[5] · Andrea Mingoli[6] · Mauro Zago[7] · Massimo Chiarugi[8] · Gian Andrea Binda[9] · Reinhold Kafka[10] · Gabriele Anania[11] Annibale Donini[1] · Riccardo Nascimbeni[12] · Mohammed Edilbe[13] · Sorena Afshar[13]

315 septic sschock, 68% Hinchey III, 29% Hinchey IV

- Phase I (Resection) 9.1% anastomosis, 0.9% suture
- Phase II (ICU) Mortalitiy 1.3%
- Phase III 62% Primary anastomosis (7% +Ileosotmy; 7% leak)
  27% Hartmann
- Mortality 9.2%

73% anastomisis @2nd look (leak 13%)
27% Hartmann
9% mortality
55% no stoma @discharge
8 studies, 256 patients *BMC Surg 2021*

Snapshot study (3month)



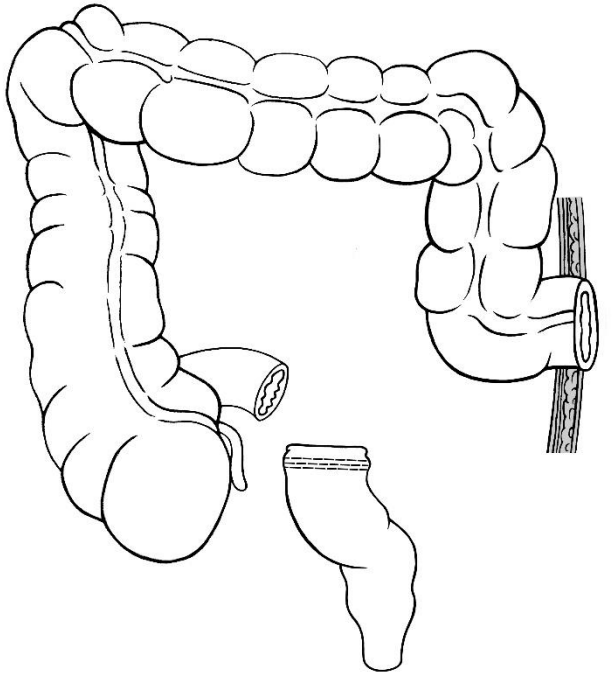
Swiss Snapshot Diverticulitis Study 2020

Stoma reversal after Hartmann's procedure for acute diverticulitis

Johannes M. Salusjärvi, MD[a], Laura E. Koskenvuo, MD, PhD[a], Juha P. Mali, MD[a], Panu J. Mentula, MD, PhD[a], Ari K. Leppäniemi, MD, PhD[a], Ville J. Sallinen, MD, PhD[a,b,*]

[a] *Gastroenterological Surgery, Helsinki University Hospital and University of Helsinki, Helsinki, Finland*
[b] *Transplantation and Liver Surgery, Helsinki University Hospital and University of Helsinki, Helsinki, Finland*

218 patients
2 yrs FU
Surgery 2023



@2-years

35% patients died with stoma

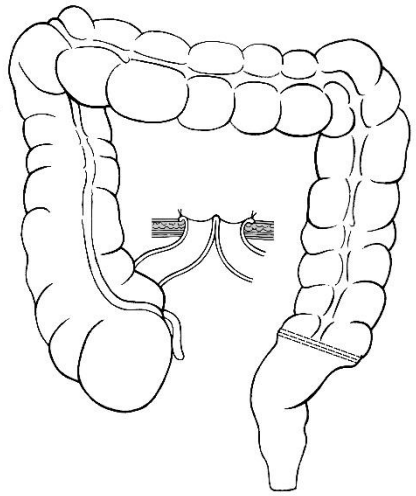
19.3% alive with stoma

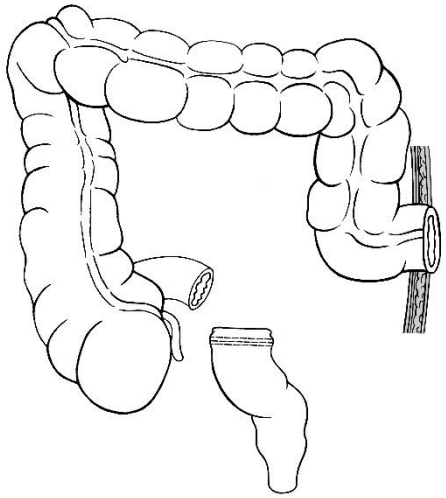
46% stoma reversal

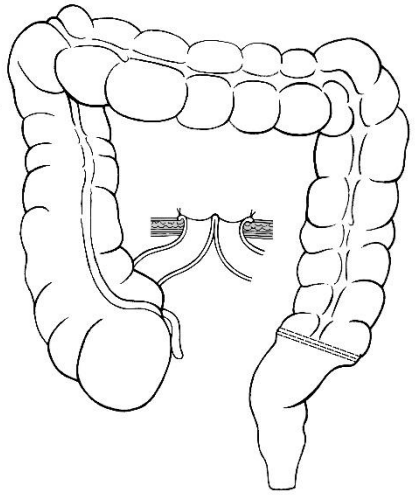
52% stoma reversal

RCT Zürich Switzerland

Ann Surg 2012







\- 92.4% 7.6%

USA n=2729, NSQIP data *Jae Moo L. J Am Coll Surg 2019*

21.7% 75.4% 2.9%

USA n=1314, NSQIP data *Tadlock M. J Trauma acute care 2013*

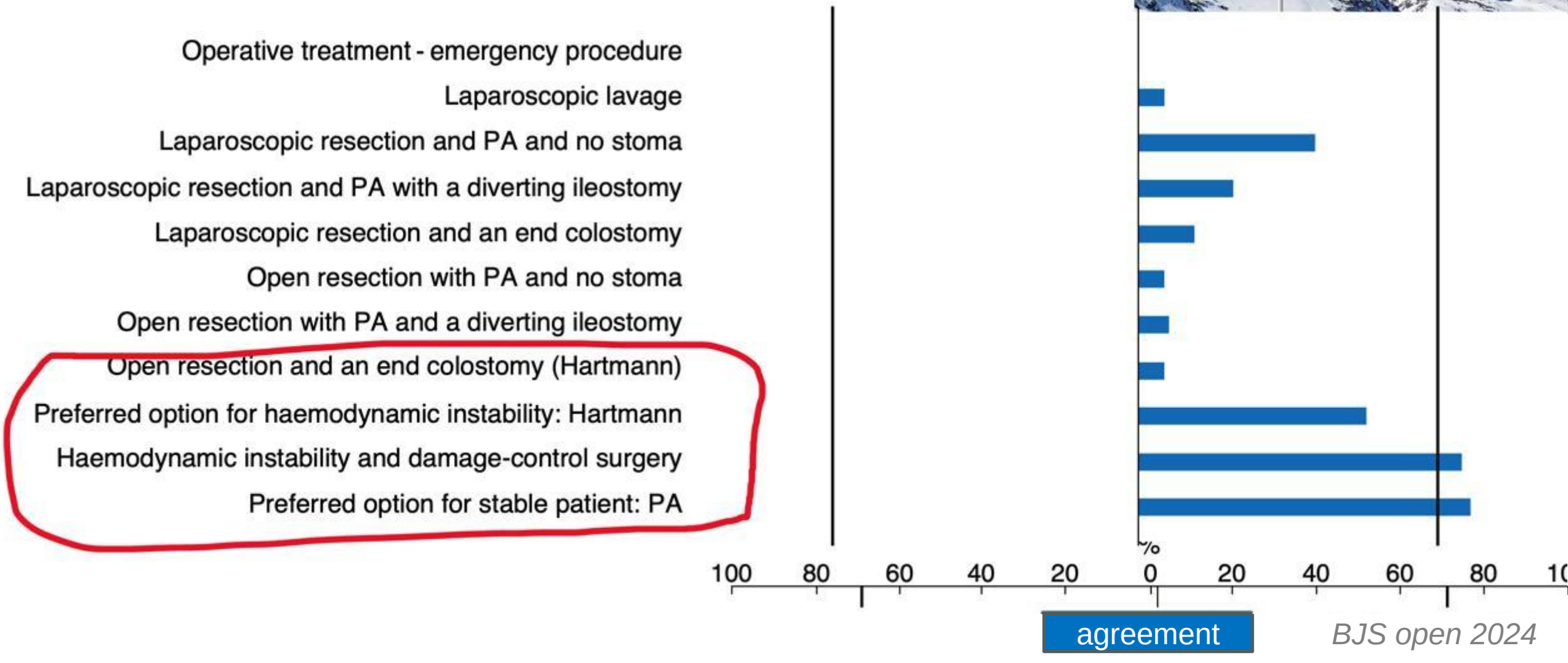
62% 24% 14%

Spain n=116 *Golda T, Biondo S. Colorectal Dis 2014*

Surgeon, Not Disease Severity, often Determines the Operation for Acute Complicated Diverticulitis

Swiss consensus on the management of acute diverticulitis

Timothée Girardin[1], David Martin[1], Enrique Lázaro-Fontanet[1], Daniel Clerc[1], Martin Hübner[1], Lukas Brügger[2], Matthias Turina[3], Walter Brunner[4], Dimitri Christoforidis[5], Frederic Ris[6], Michel Adamina[7], Marco von Strauss[8], Dieter Hahnloser[1,*] and the Swiss Colorectal Working Group



BJS open 2024

European Society of Coloproctology: guidelines for the management of diverticular disease of the colon

Statements

6.2.1 In the emergency setting, the focus is to control sepsis and resect the perforated segment.

Evidence level 4, Conditional recommendation. Consensus 100% (consensus meeting)

6.2.2 In the case of resection and primary anastomosis, sigmoid resection down to the rectum with colorectal anastomosis should be done, with the proximal margin in as healthy colon as possible.

Statement

4.4.1 Primary anastomosis with or without diverting ileostomy can be performed in haemodynamically stable and immunocompetent patients with Hinchey III or IV diverticulitis.

Evidence level 2, Conditional recommendation. Consensus 97% (second voting)

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Colorectal Dis 2020

Consider

- The patient
  - –The general condition
  - –The current condition
- The severity of diverticulitis
- The final result

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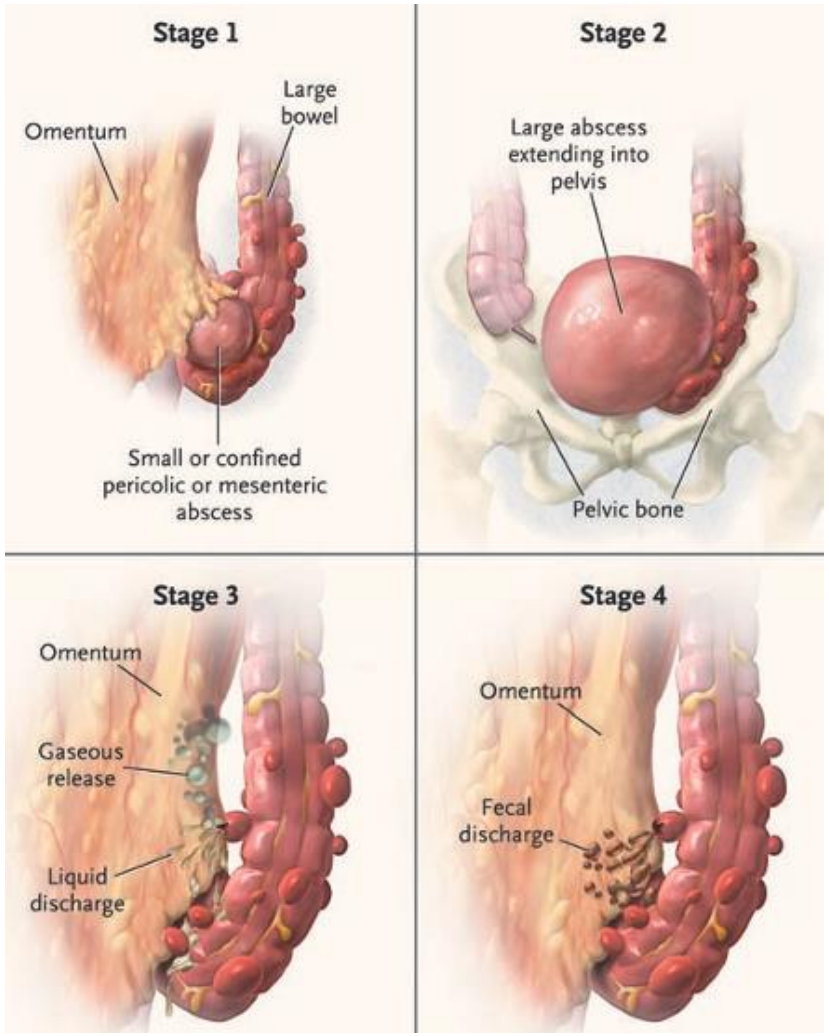

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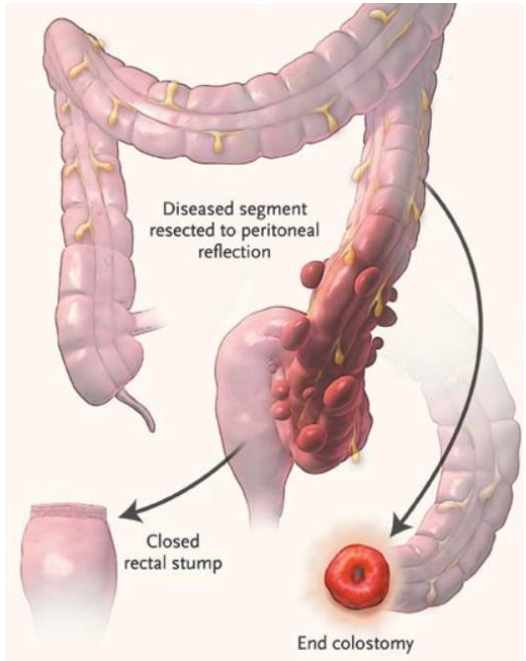

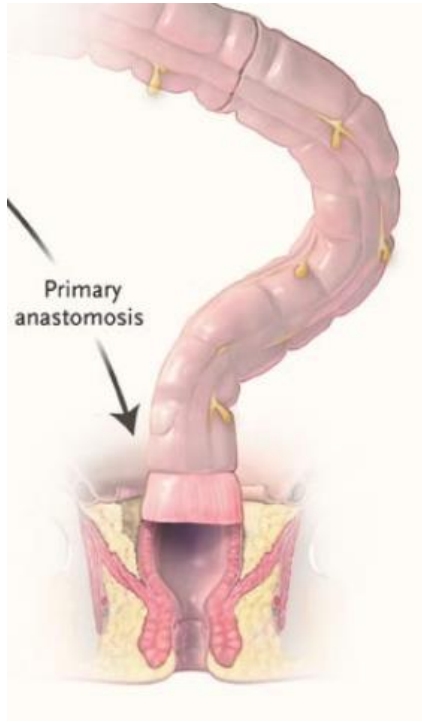

Damage Control

10% mortality of disease
70% anastomosis (leakage ~10%)
<25%Hartmann
~ **60% no stoma** @discharge

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Video Session

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Trial updates

Debates

25th ALPINE COLORECTAL MEETING

1st – 3rd February 2026
Saas-Fee, Switzerland

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