

Damage Control in Abdominal Sepsis

Dieter Hahnloser
dieter.hahnloser@chuv.ch

CHUV
University Hospital Lausanne
Switzerland

How can we
reduce stoma ?

Damage Control



“Keep a badly damaged ship afloat after major penetrating injury to the hull”

Stuffing mattresses into gaping hole, extinguishing local fires to prevent spread of the inflammation

Eisenman 2000

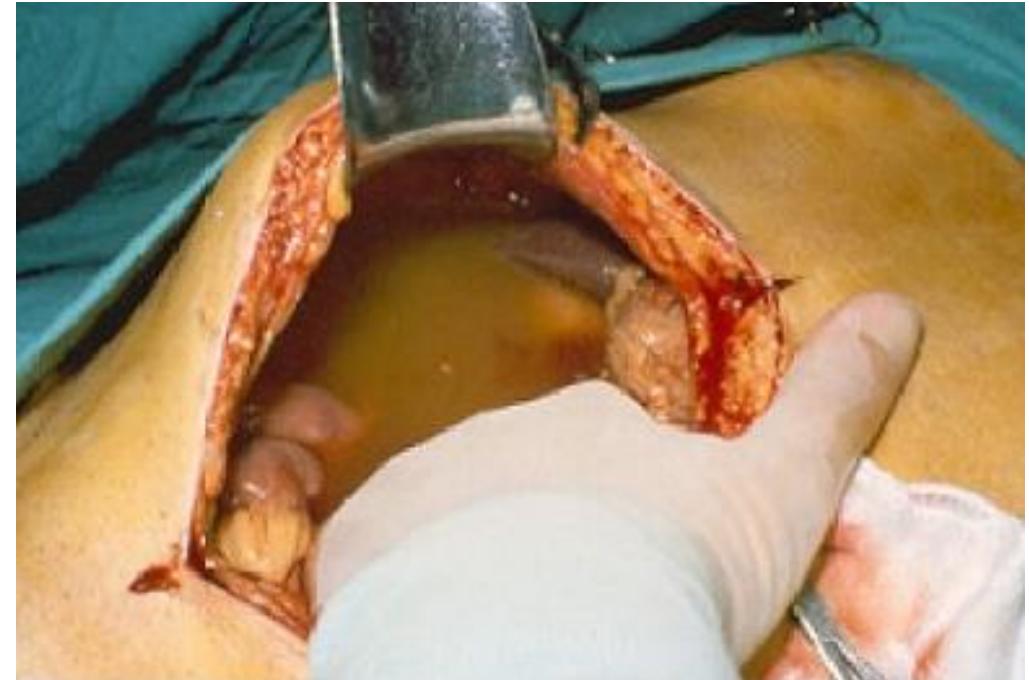


Damage Control

In Trauma !



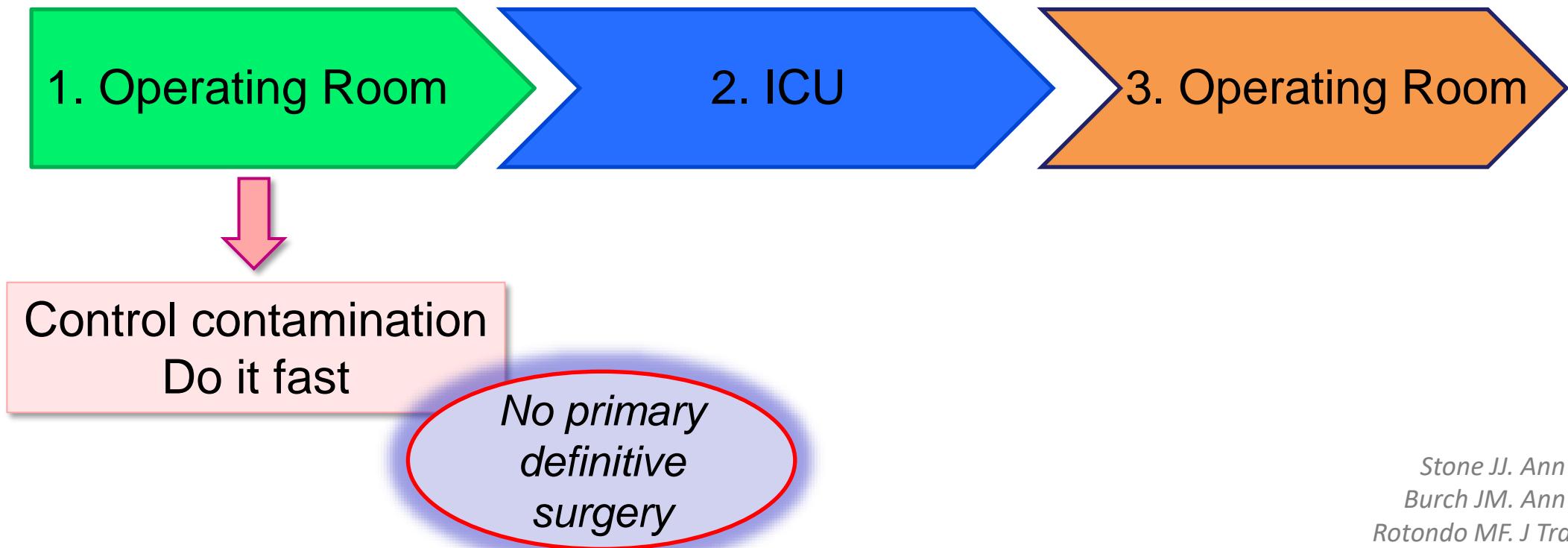
In abdominal sepsis?



Damage Control

Principles

3 step management approach

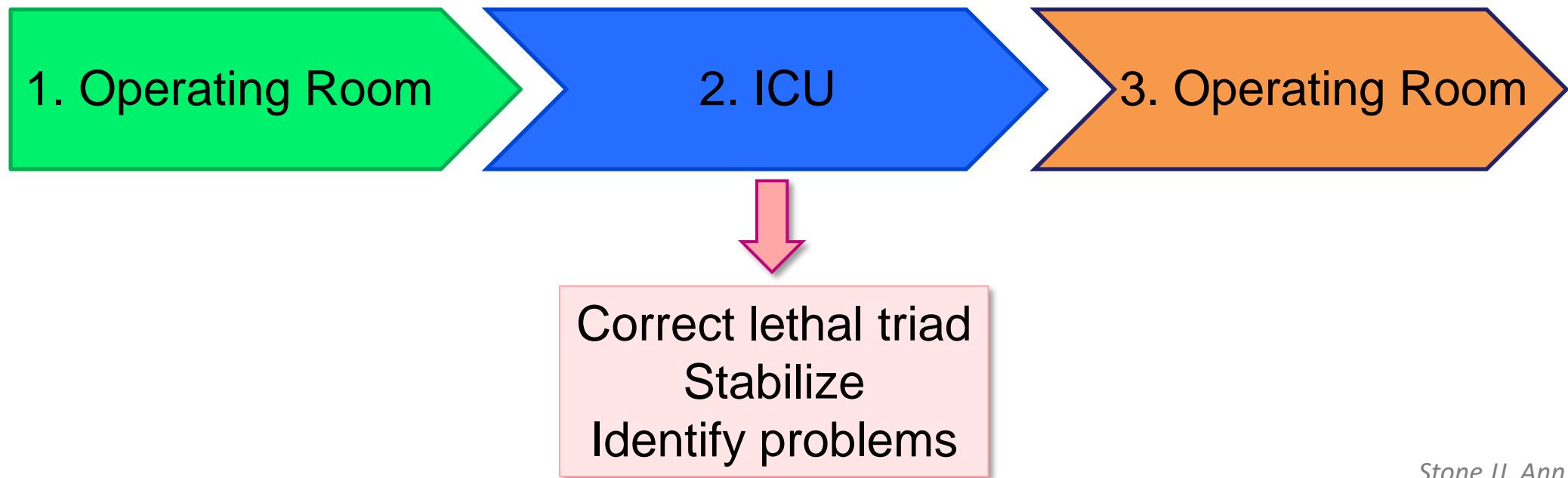


Stone JJ. Ann Surg. 1983
Burch JM. Ann Surg. 1992
Rotondo MF. J Trauma. 1993
Sartelli M. World J Emerg Surg. 2015

Damage Control

Principles

3 step management approach



Stone JJ. Ann Surg. 1983

Burch JM. Ann Surg. 1992

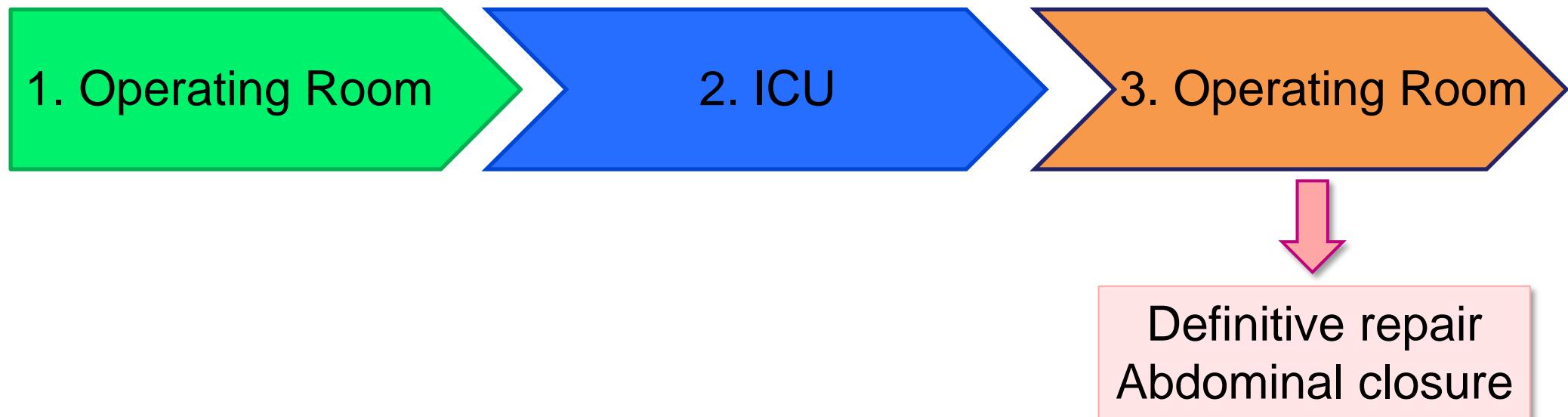
Rotondo MF. J Trauma. 1993

Sartelli M. World J Emerg Surg. 2015

Damage Control

Principles

3 step management approach

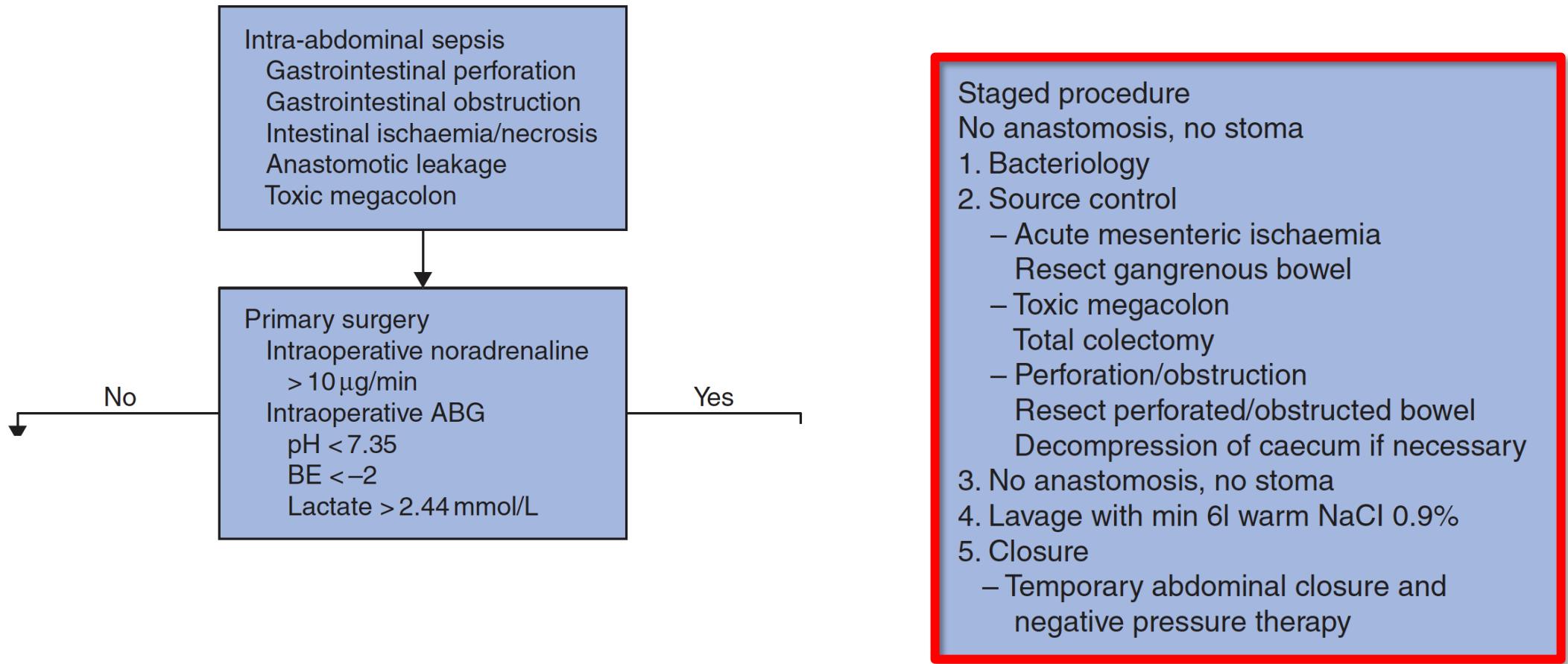


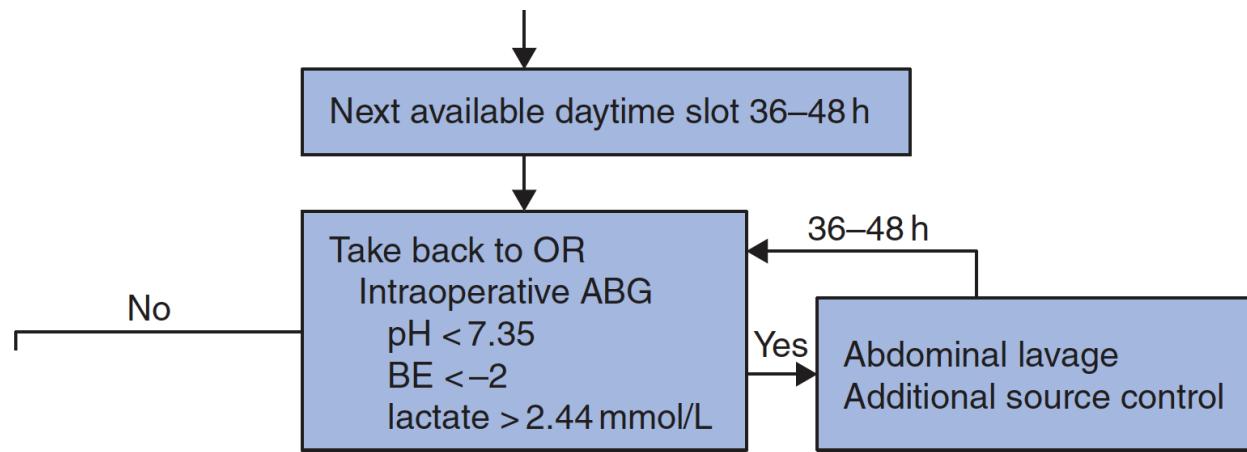
Stone JJ. Ann Surg. 1983

Burch JM. Ann Surg. 1992

Rotondo MF. J Trauma. 1993

Sartelli M. World J Emerg Surg. 2015



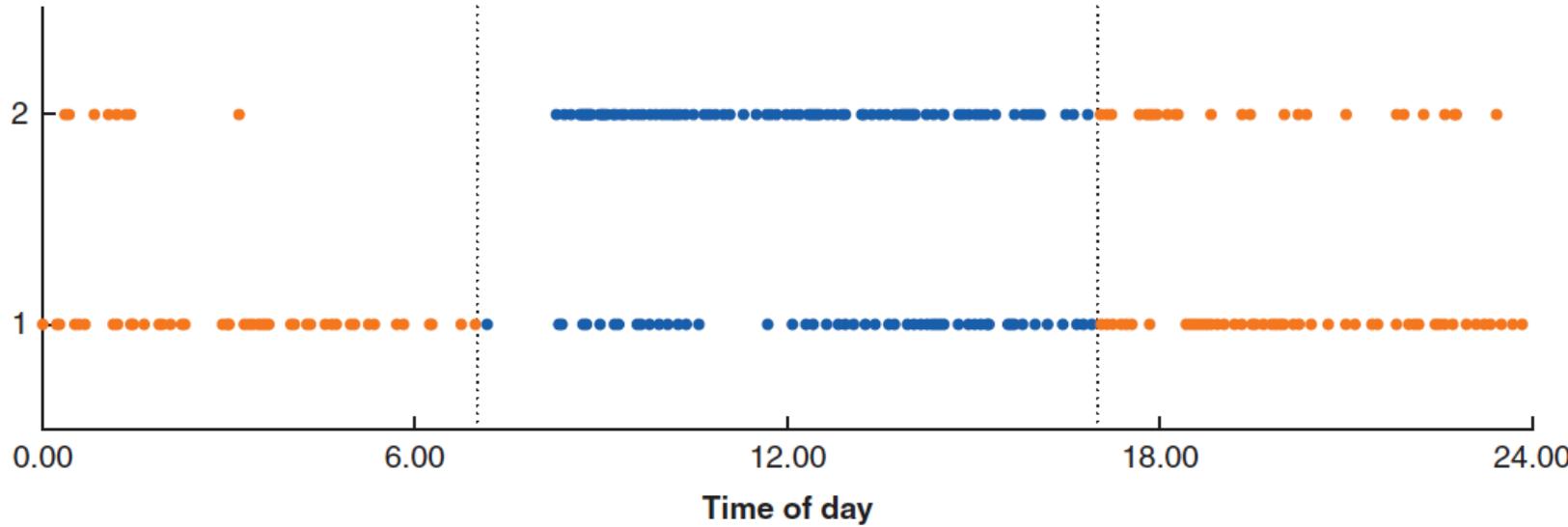


Diagnosis

Mesenteric ischaemia	95 (47)
Intestinal perforation	61 (30)
Anastomotic leakage	25 (12)
Intestinal obstruction	13 (6)
Bleeding	8 (4)
Toxic megacolon	1 (0)

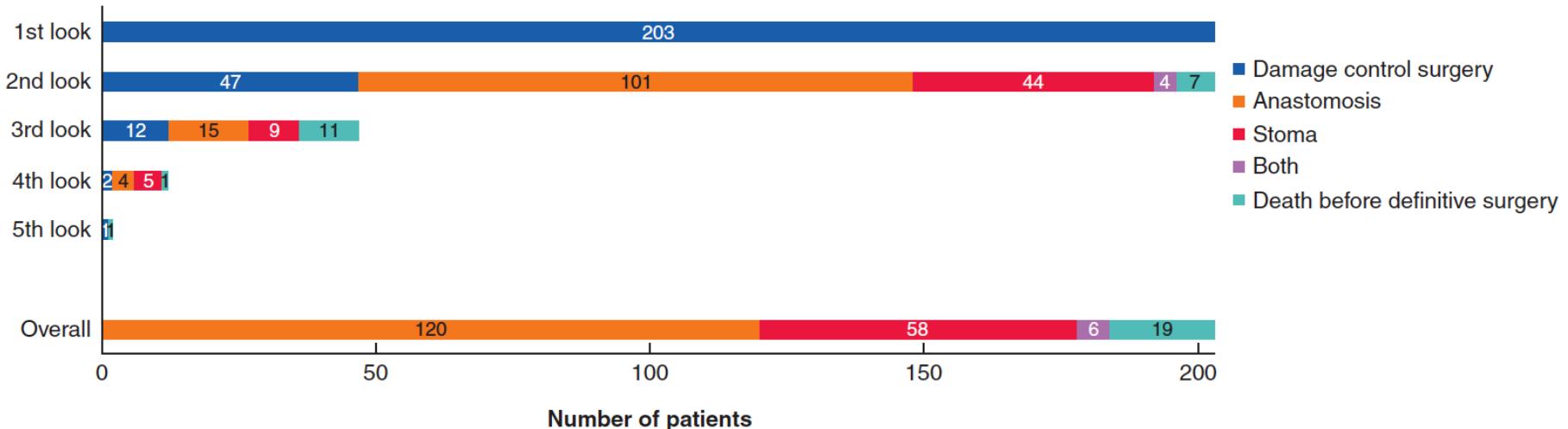
Type of resection

Small bowel	46 (23)
Large bowel	123 (61)
Small and large bowel	14 (7)
Anastomosis only	20 (10)



1st
60% nighttime
82 minutes

2nd
81% daytime
Median @44hrs
76% definitive surgery



26% in-hospital mortality
@discharge 65% no stoma

Table 3 Independent risk factors for death

Independent variables	Death (n = 53)	Odds ratio†
Noradrenaline ($\mu\text{g}/\text{min}$)	28 (33)*	4.25 (1.72, 12.83)
pH	7.224 (0.187)*	2.72 (1.24, 6.65)
Base excess	-9.6 (12.905)*	1.61 (0.70, 4.22)
Lactate (mmol/l)	4.1 (4.0)*	6.77 (3.20, 15.78)
Gender (female, male)	15, 38	2.40 (1.24, 4.85)
Immunosuppression	11 (21)	2.05 (0.87, 4.68)
Age (years)	73 (19)*	1.61 (0.86, 3.06)
BMI (kg/m^2)	26 (7)*	0.99 (0.47, 2.02)
ASA score >3	46 (87)	5.75 (2.58, 14.68)
Diagnosis		3.27 (1.71, 6.46)
Mesenteric ischaemia	36 (68)	
Intestinal perforation	9 (17)	
Anastomotic leakage	5 (9)	
Intestinal obstruction	2 (4)	
Bleeding	1 (2)	
Toxic megacolon	0 (0)	
Type of resection		2.95 (1.24, 8.21)
Small bowel	6 (11)	
Large bowel	37 (70)	
Small and large bowel	5 (9)	
Anastomosis only	5 (9)	
Operation time (min)	76 (52.5)*	0.67 (0.35, 1.25)
Daytime (operation start 7.00–17.00 hours)	24 (45)	0.74 (0.39, 1.40)
Operation request to skin incision (min)	92 (89)*	0.63 (0.31, 1.30)
Number of re-damage control‡		1.77 (0.78, 3.87)
None	33 (62)	
One	16 (30)	
Two	2 (4)	
Three	1 (2)	
Four	1 (2)	

Damage Control in Abdominal Sepsis

- Feasable, even >1 second look
- Patients still have a high mortality due to condition
- Optimal ressources @daytime
- 2/3 discharged without stoma



Video Session
State of the Art Lectures
Trial updates
Debates



22nd ALPINE COLORECTAL MEETING

26th – 28th March 2023
Courchevel, France

www.alpinecolorectal.org