



# One 2 One Medicine

Clinical Revision Course  
2016

SAMPLE

Dr. Jake Mann

# Course outline

1. Abdominal pain
2. Blackout
3. Bloating
- 4. Change in bowel habit**
5. Chest pain
6. Coma
7. Confusion
8. Cough
9. Dizziness
10. Fall
11. GI bleed
12. Headache
13. Itch

# Case presentation

A 19-year old geography student presents to his GP with **a change in bowel habit.**

# Case history

He has been passing loose stool with occasional blood up to 7x per day for the last 2 weeks.

# Case history

- PMHx: nil, no surgery
- FHx: nil
- Drugs: nil, NKDA
- Social: independent, lives in halls, drinks alcohol 'occasionally'

# Differential diagnosis of a change in bowel habit

What examination findings would help?

# Case examination

- Alert, well, sat up
- Thin, not cachectic
- Mildly tender abdomen. No masses.
- Normal bowel sounds.

A 19-year old geography student presents to his GP with **a change in bowel habit**. He has been passing loose stool with occasional blood up to 7x per day for the last 3 weeks.

- PMHx: nil, no surgery
- FHx: nil
- Drugs: nil, NSAIDs
- Social: independent, lives in a halls, drinks alcohol 'occasionally'
- Alert, well, sat up. Thin, not cachectic. Mildly tender abdomen. No masses. Normal bowel sounds.

 **Differential diagnosis?**



# Differential diagnosis of colitis

- Infectious

  - Bacterial

  - Diverticulitis

- Inflammatory

  - Inflammatory bowel disease

  - Ischaemic

[Cancer?]

SAMPLE Investigations?

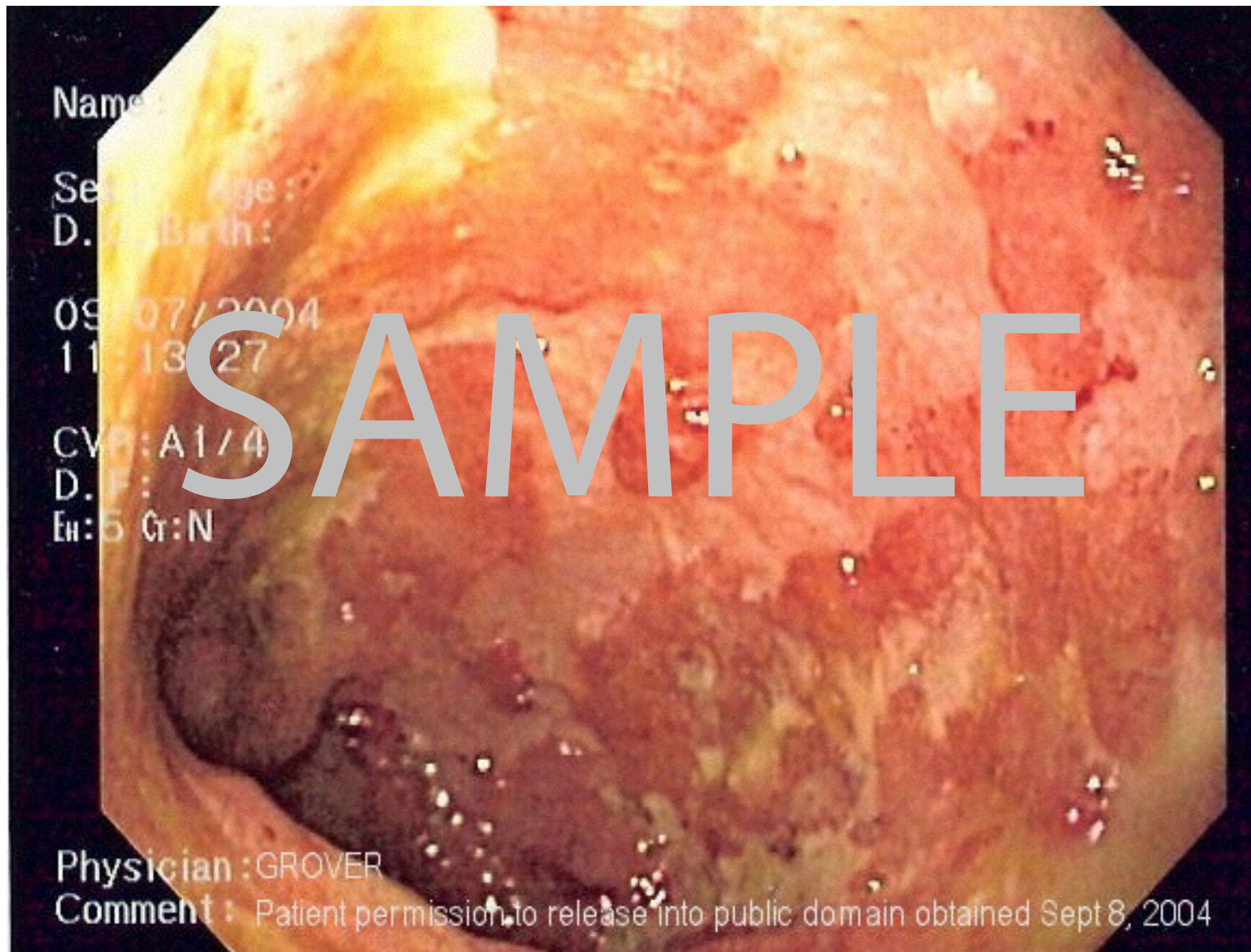
# Case investigations

	Result	Range
<b>Hb</b>	91	115 - 160 g/L
<b>MCV</b>	77	80 - 96 fL
<b>WCC</b>	17.6	4.0 - 11.0 cells x10 <sup>9</sup> /L
<b>Neut</b>	94	2.0 - 7.5 cells x10 <sup>9</sup> /L
<b>Platelets</b>	573	50 - 400 cells x10 <sup>9</sup> /L
<b>Na<sup>+</sup></b>	146	35 - 146 mmol/L
<b>K<sup>+</sup></b>	5.0	3.5 - 5.5 mmol/L
<b>Urea</b>	9.3	2.5 - 6.7 mmol/L
<b>ALT</b>	41	3 - 40 IU/L
<b>ALP</b>	130	39 - 117 IU/L
<b>Bili</b>	16	1 - 17 µmol/L
<b>ESR</b>	79	0 - 29 mm/hr

# Case developments

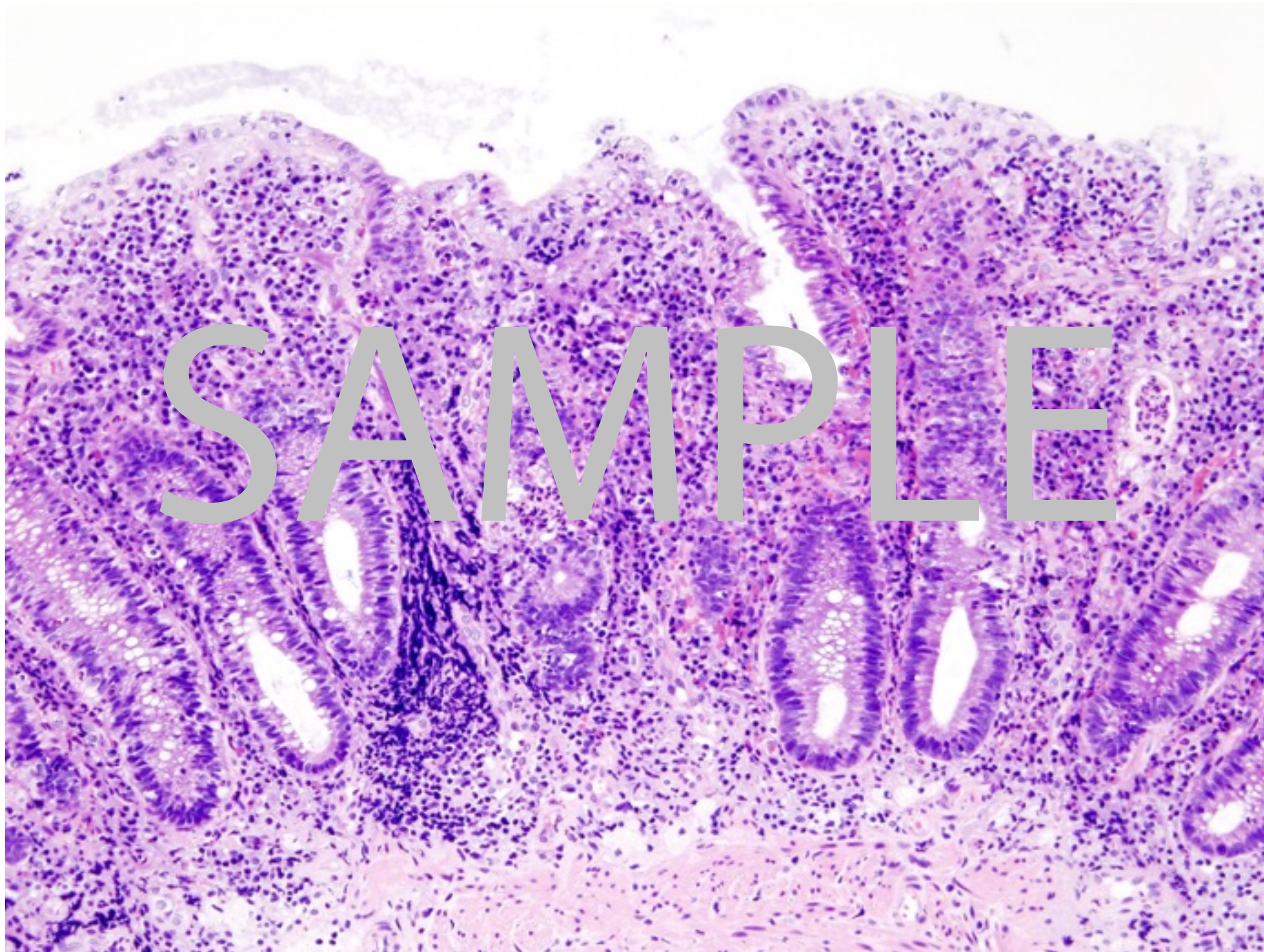
Treated with IV hydrocortisone and antibiotics. Begins to make a recovery and undergoes colonoscopy.

# Case investigations





# Case investigations

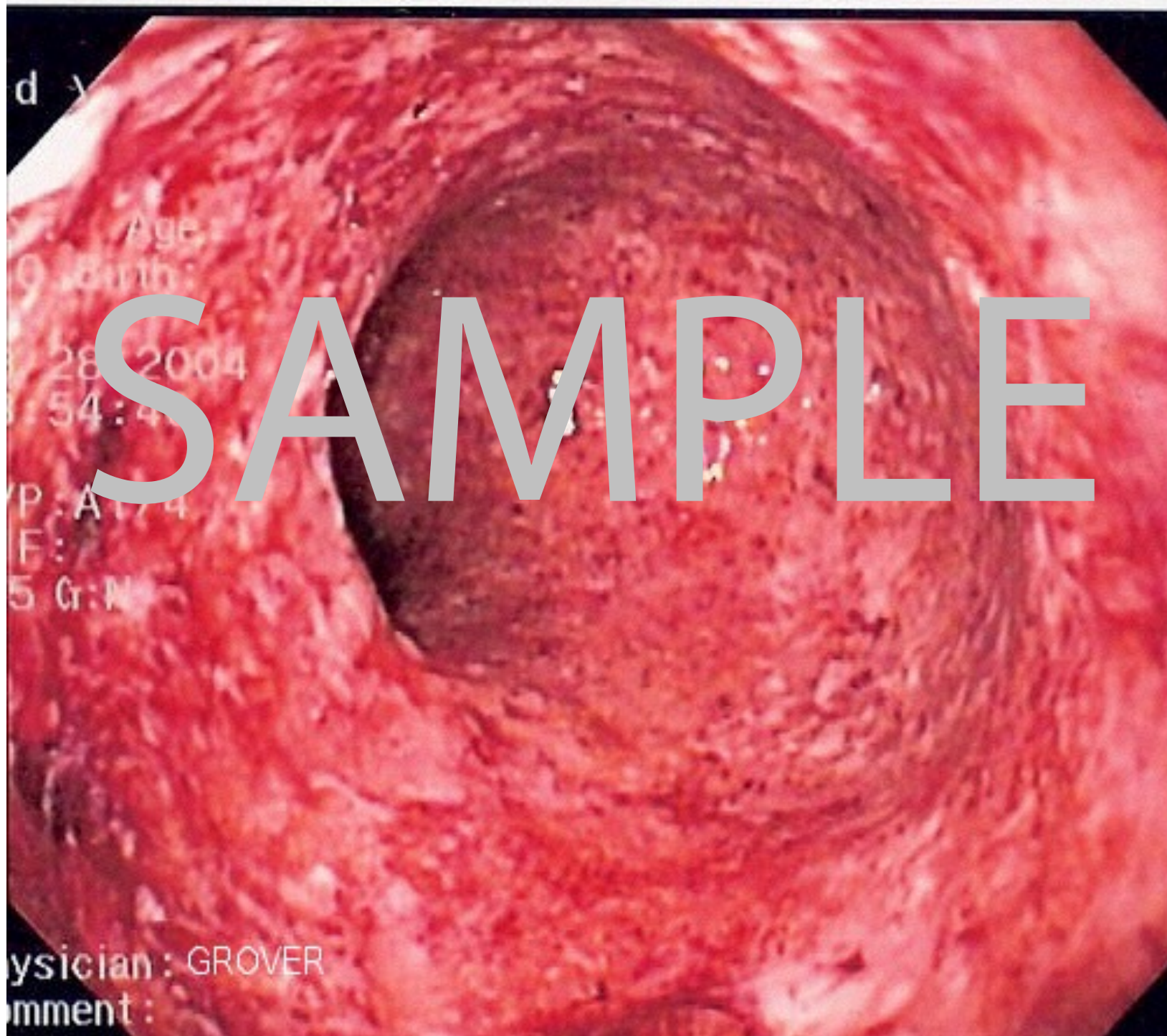


# Ulcerative colitis vs. Crohn's disease

Ulcerative colitis	Crohn's disease
Continuous segment	'Skip' lesions
Mucosal inflammation	Transmural inflammation
Colon only	Anywhere in GIT
No granulomas	Granulomatous
No fistulae	Fistulae



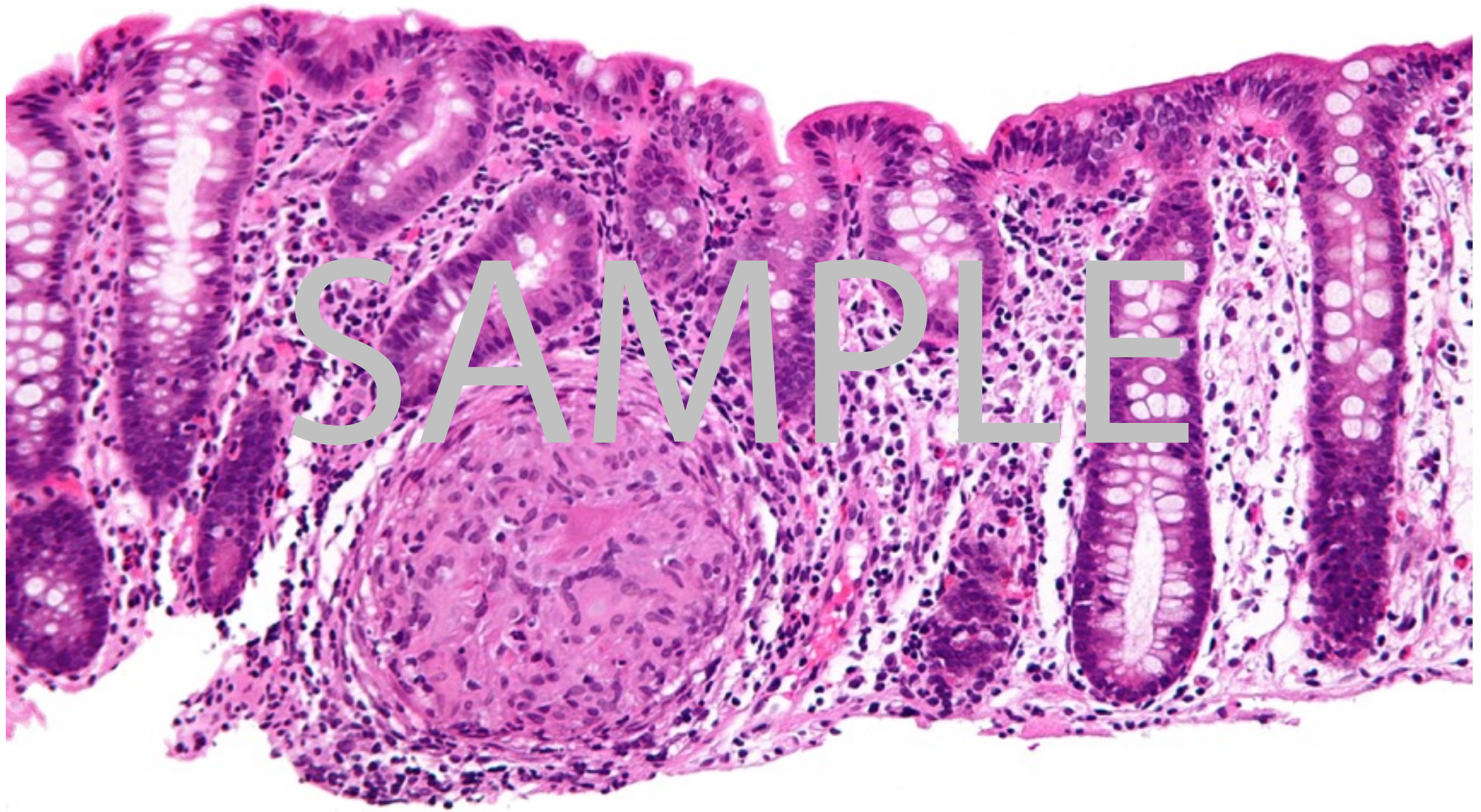
# Crohn's disease



 #O2OMClin

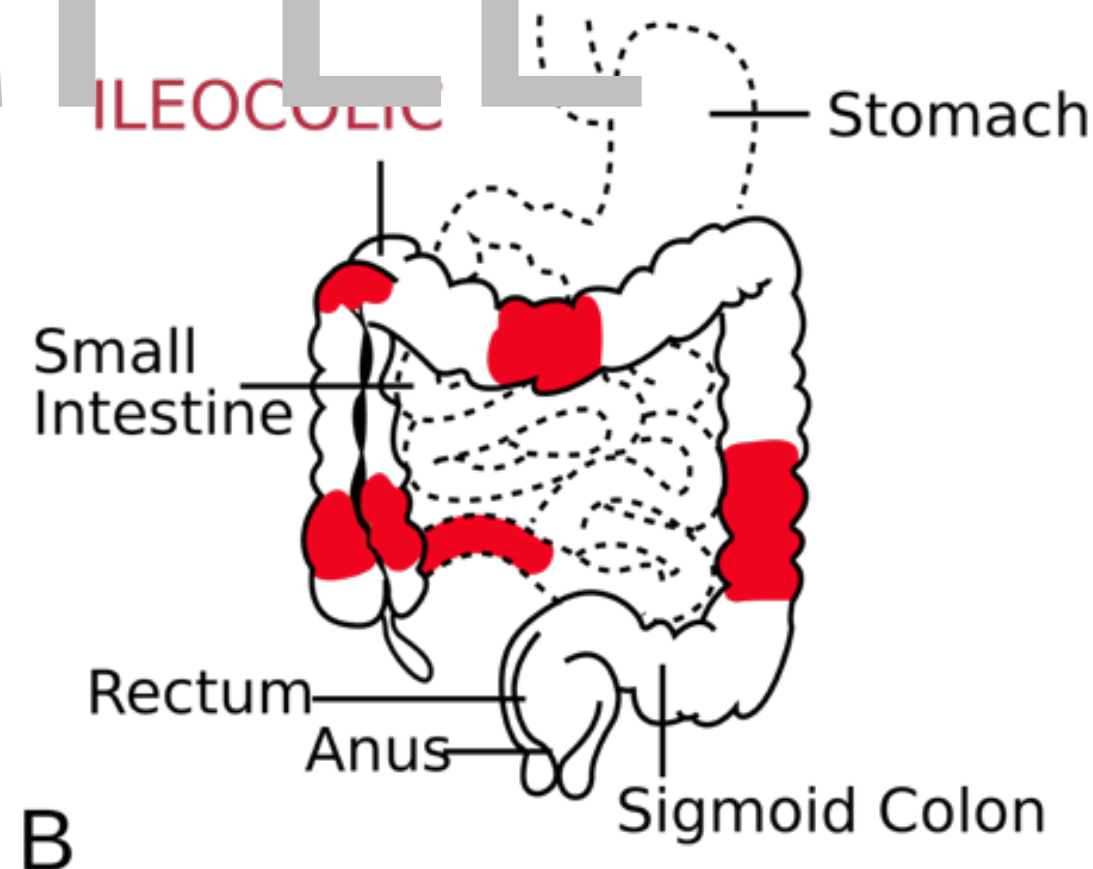
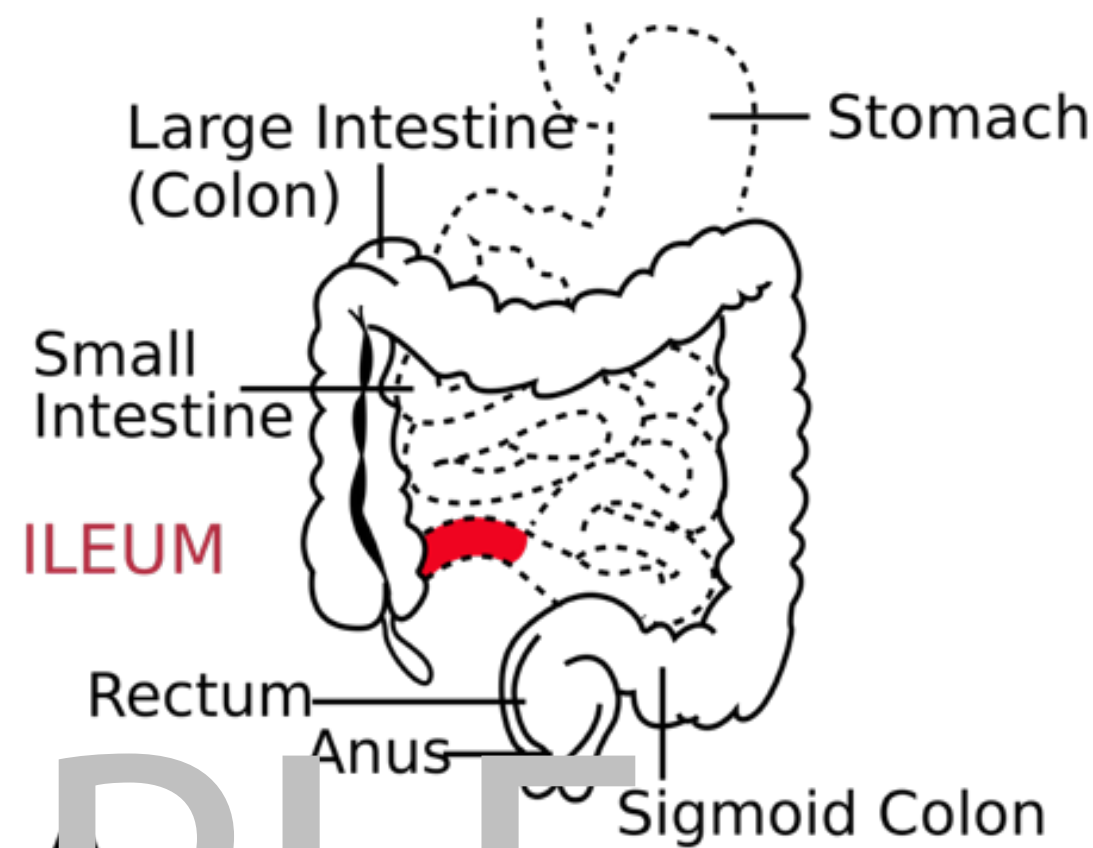
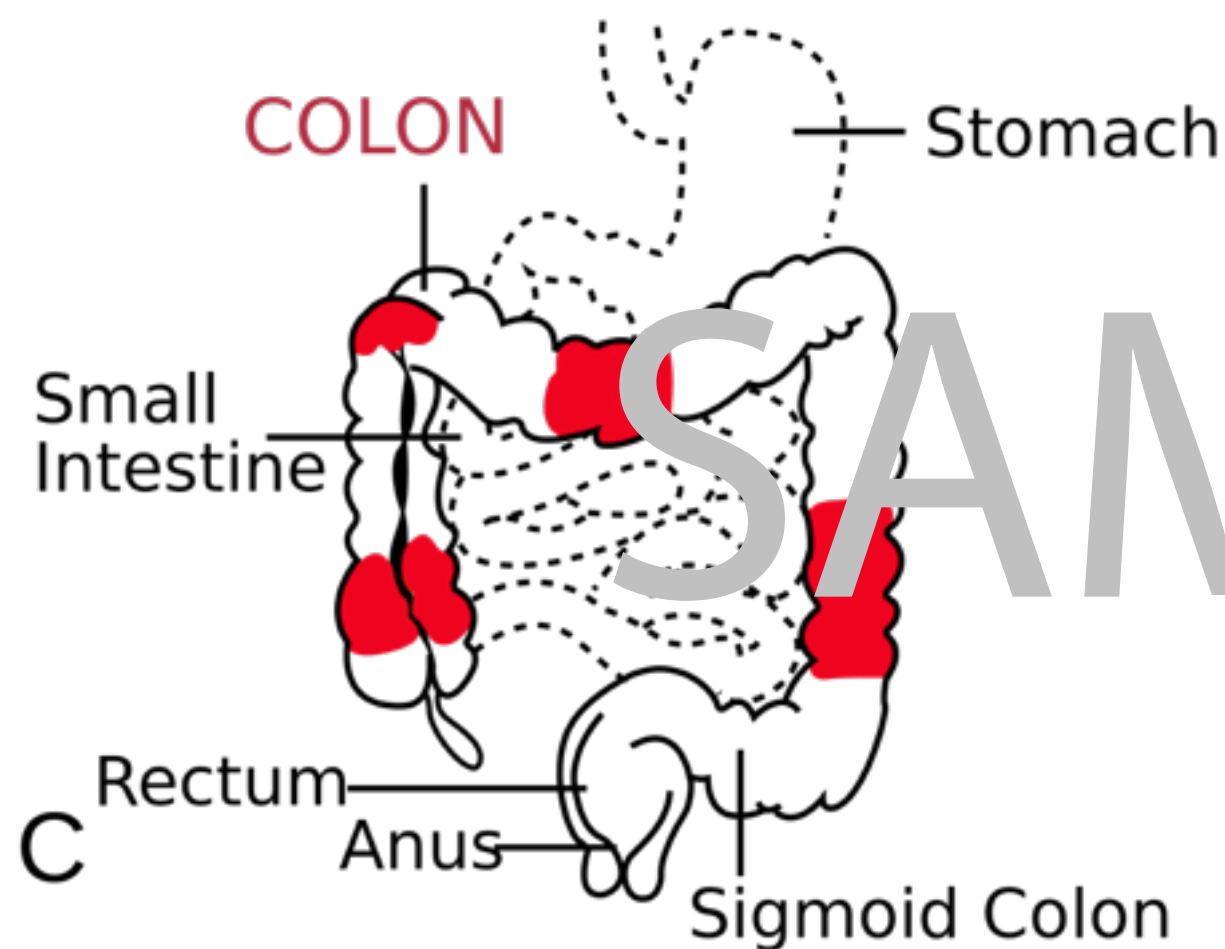


# Crohn's disease

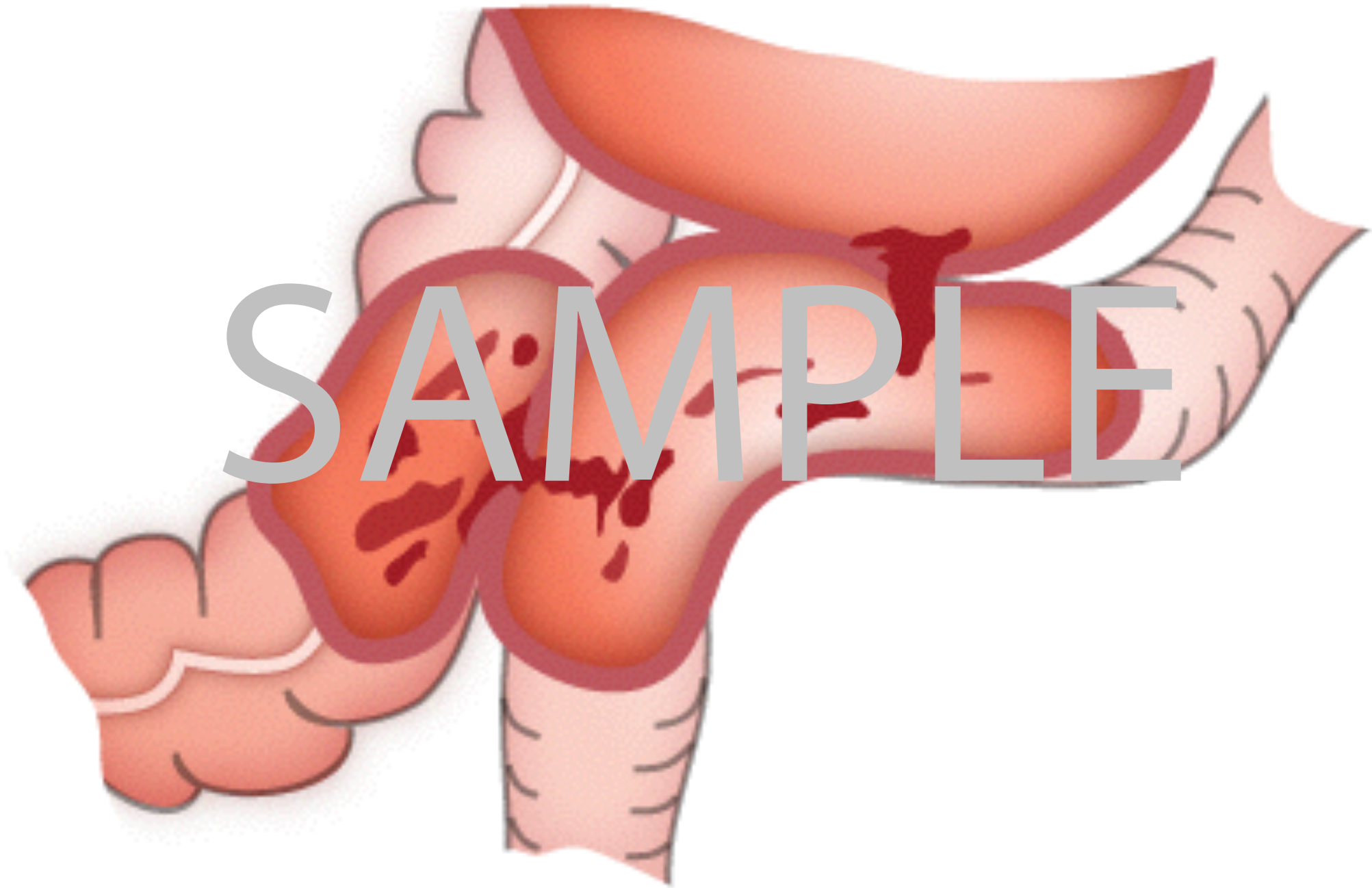




# Crohn's disease

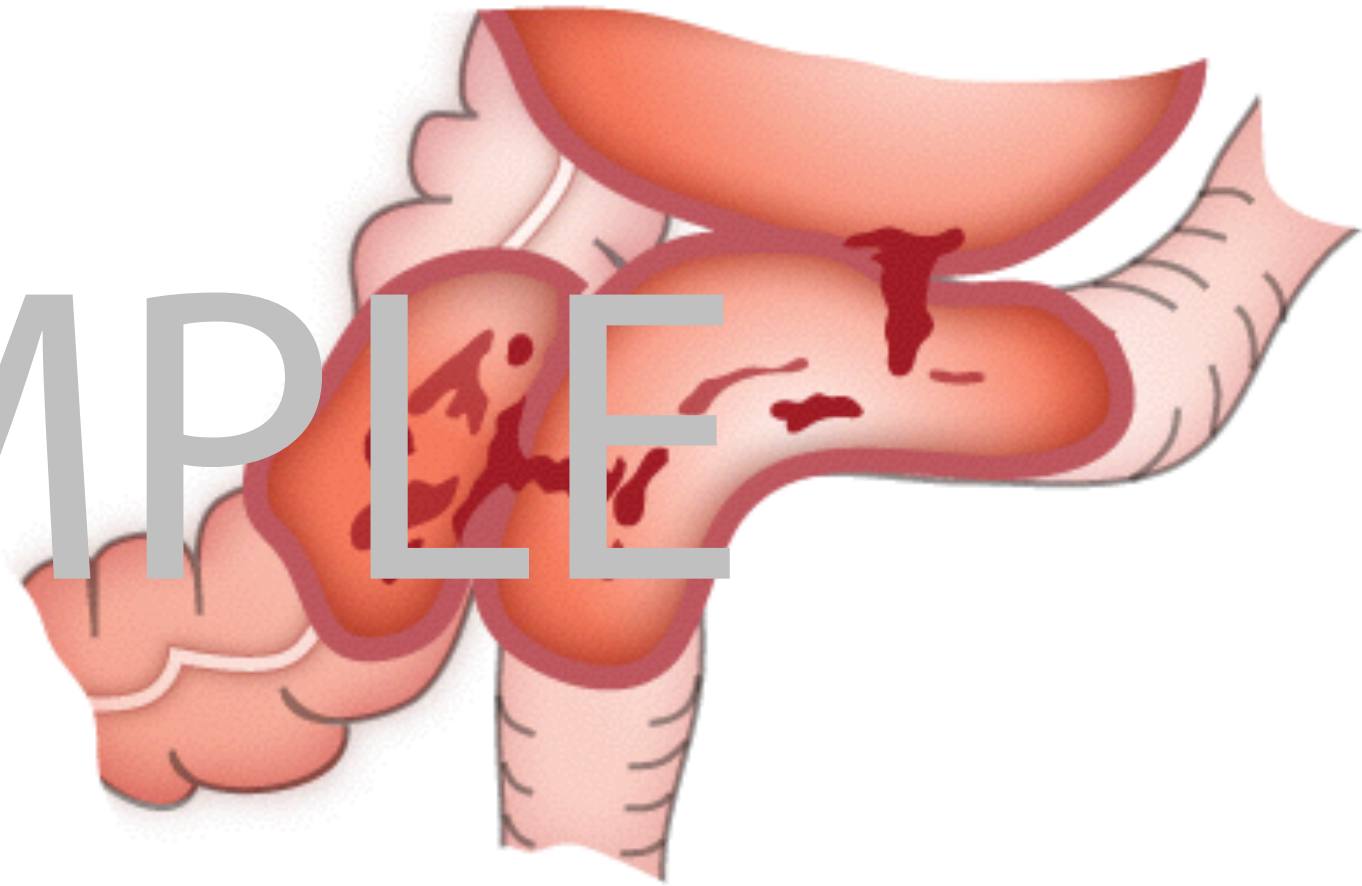


# Crohn's disease - fistulae



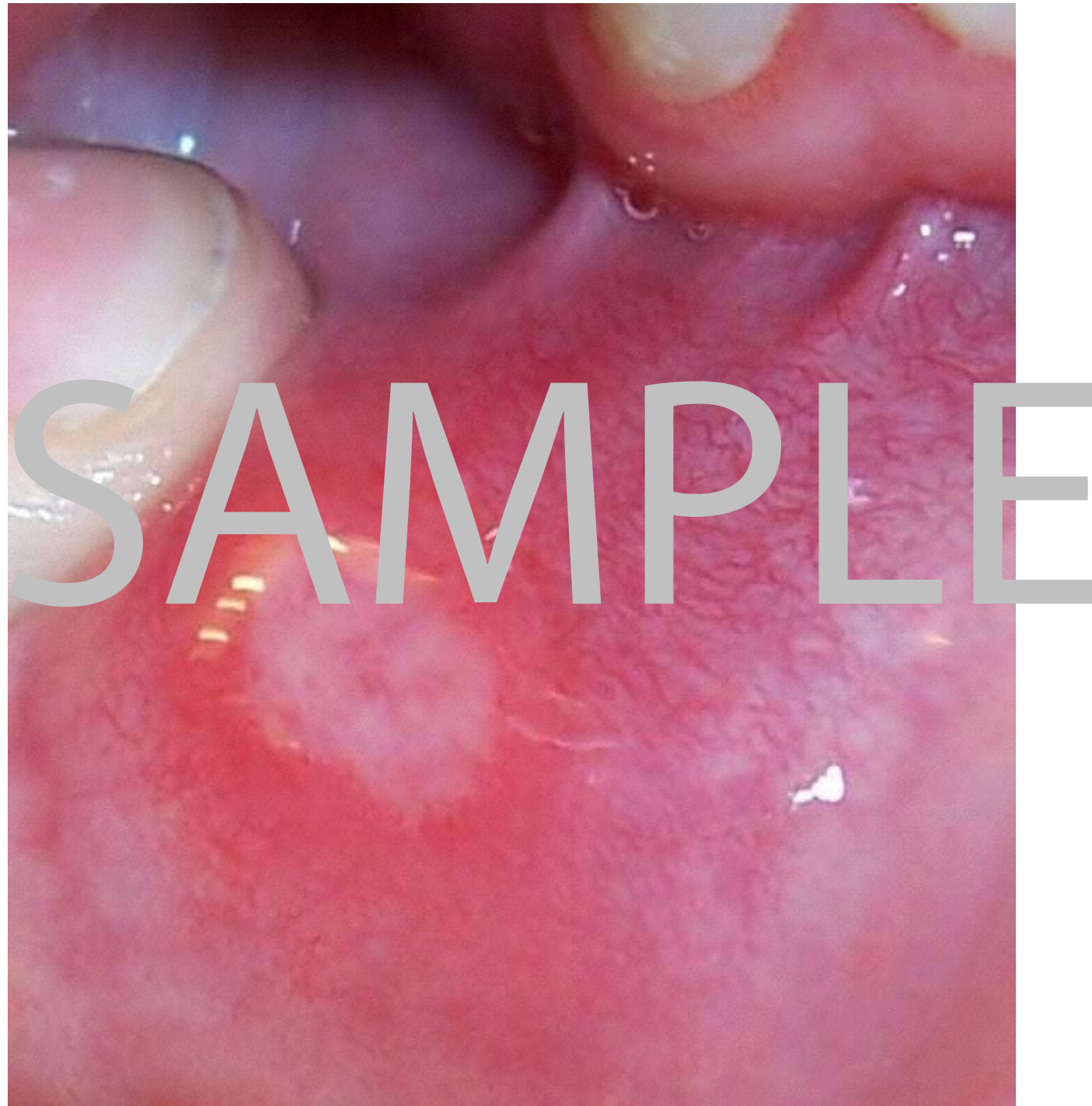
# Crohn's disease - fistulae

- Treat infection
- Remove distal obstruction
- Reduce flow
- (Rehydrate)





# Extraintestinal manifestations



 #O2OMClin



# Extraintestinal manifestations



# Extraintestinal manifestations



 #O2OMClin



# Extraintestinal manifestations



 #O2OMClin

# Case developments

Long term remission achieved with azathioprine (after failure of trial of sulfasalazine).



# Case developments

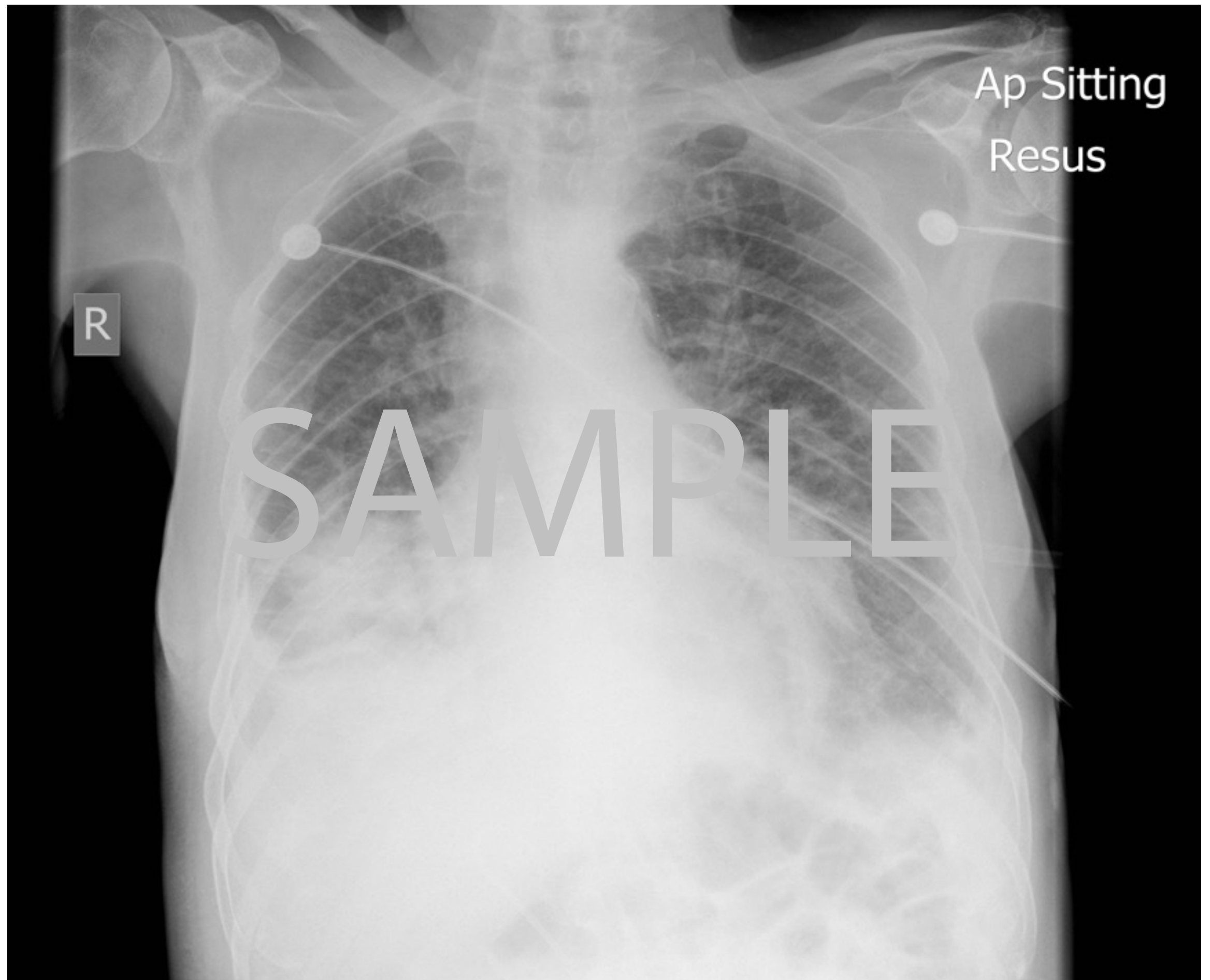
Admitted to A&E with GCS 11/15, 38.7 degrees,  
crackles at right lung base.

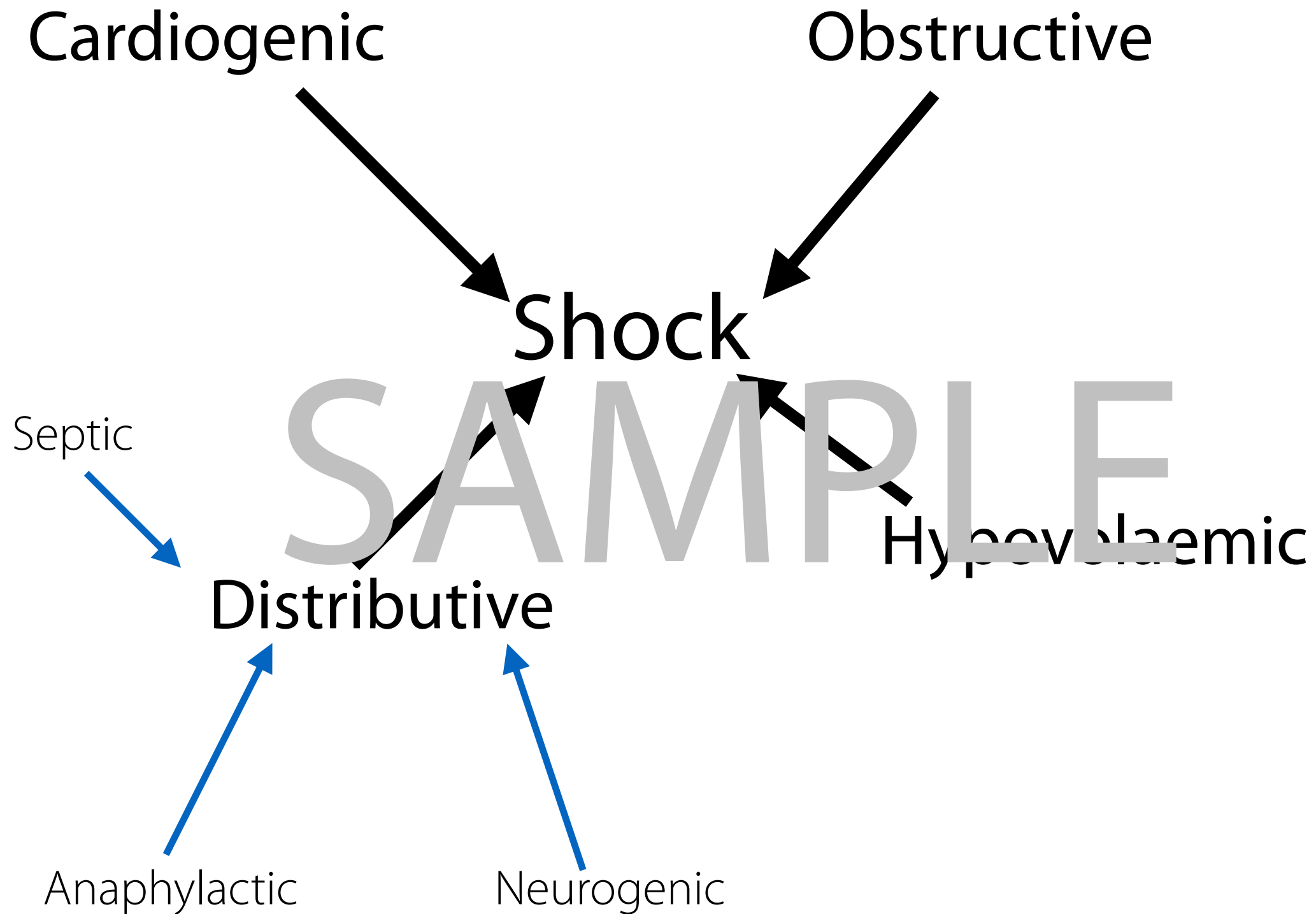
HR 142 bpm, BP 70/48, central capillary refill = 4s.

# Case investigations

	Result	Range
Hb	91	115 - 160 g/L
MCV	77	80 - 100 fL
WCC	1.5	4.0 - 11.0 cells x10 <sup>9</sup> /L
Neut	0.1	2.0 - 7.5 cells x10 <sup>9</sup> /L
Platelets	621	150 - 400 cells x10 <sup>9</sup> /L
CRP	278	<5 mg/L







# Septic shock

1. Blood cultures
2. Lactate & Hb
3. Urine output
4. Oxygen
5. Antibiotics
6. Fluid challenge

SAMPLE Surviving Sepsis Campaign

# Neutropenic sepsis

- Gram positive or negative bacteria
- Culture everything
- **Broad spectrum antibiotics**
  - E.g. Tazobactam-piperacillin + vancomycin
  - ± Anti-fungals

SAMPLE

# Case developments

Makes a full recovery with appropriate treatment.  
Maintained on steroids, ciclosporin, & infliximab.  
Good disease control is achieved.

# Case developments

SAMPLE

Attends annual review, feeling generally well but slightly tired. Abdomen soft.



# Case investigations

	Result	Range
Hb	120	115 - 160 g/L
WCC	10.1	4.0 - 11.0 cells x10 <sup>9</sup> /L
Neut	6.4	2.0 - 7.5 cells x10 <sup>9</sup> /L
Platelets	132	150 - 400 cells x10 <sup>9</sup> /L
Na <sup>+</sup>	135	135 - 146 mmol/L
K <sup>+</sup>	5.2	3.5 - 5.5 mmol/L
Urea	6.1	2.5 - 6.7 mmol/L
ALT	82	3 - 40 IU/L
ALP	856	39 - 117 IU/L
Bili	78	1 - 17 µmol/L
ESR	41	0 - 29 mm/hr

# Case investigations

## USS abdomen:

Dilated intrahepatic ducts, multiple strictures in extrahepatic ducts. No masses seen. Coarse liver edge.

Anti-mitochondrial antibody - negative



# Liver function test - 'pictures'

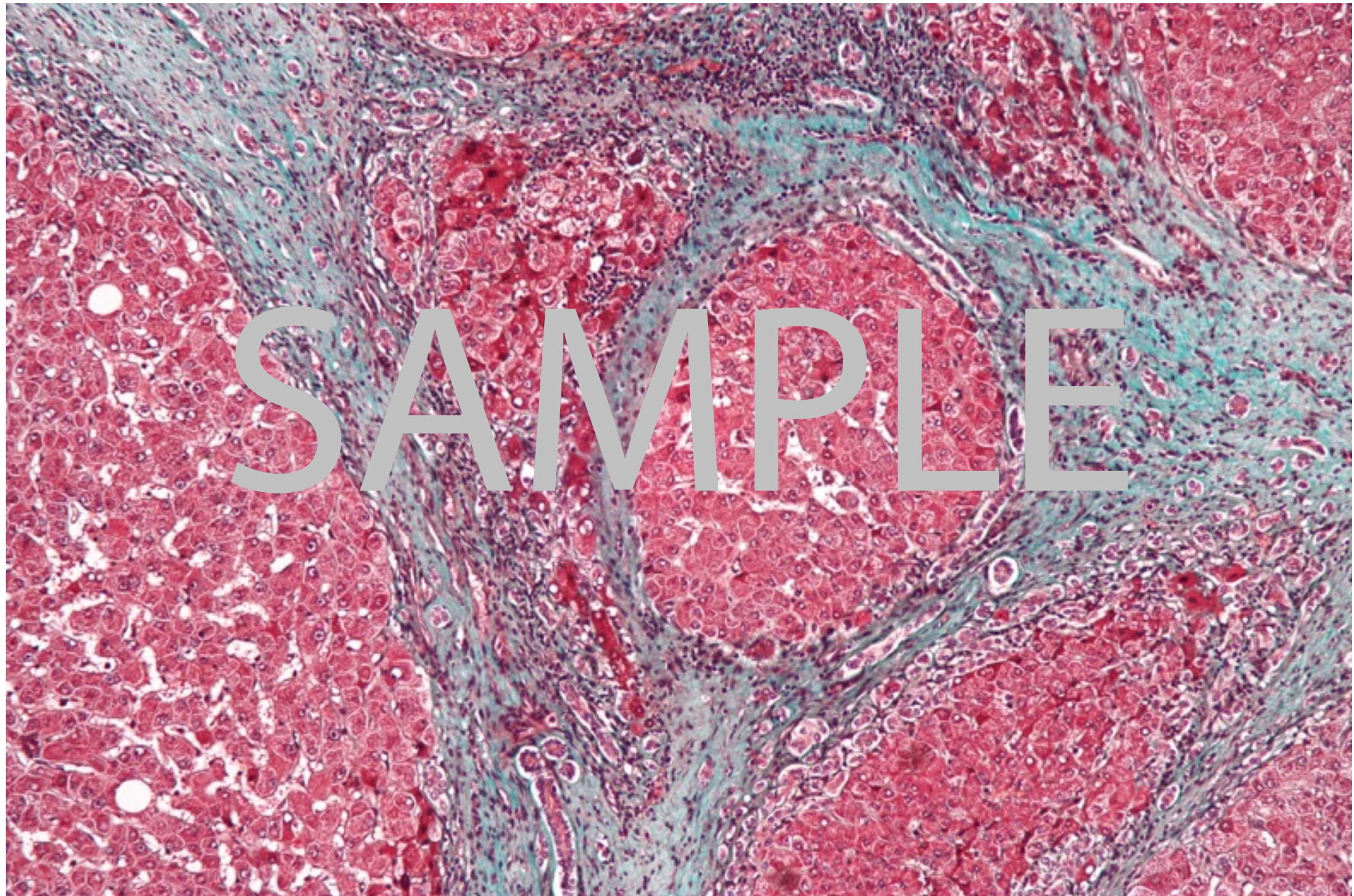
- **Hepatic:** very high ALT/AST, slightly high ALP/bili/GGT
- **Cholestatic:** very high ALP/bili/GGT, slightly high ALT/AST
- Mixed

# Differential diagnosis of abnormal LFT

Hepatic	Cholestatic
Alcoholic liver disease	Gallstones
Non-alcoholic fatty liver disease	Drugs
Viral hepatitis	Primary sclerosing cholangitis
Paracetamol overdose	Primary biliary cirrhosis
Other	Cancer



# Case investigations

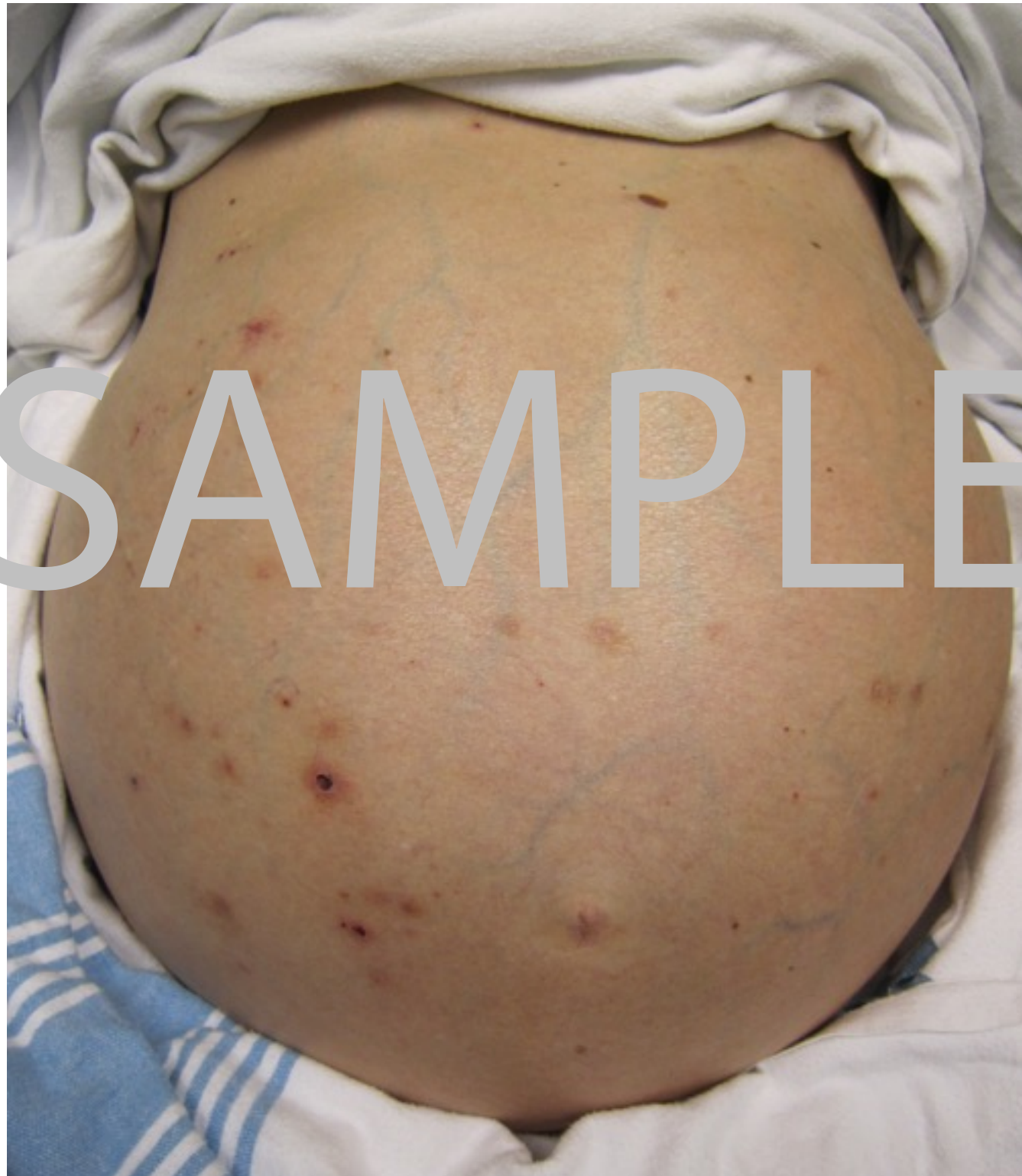




# Case investigations

Liver biopsy shows gross architectural disruption with regenerative nodules and bands of fibrosis. 'Onion skin' fibrosis around portal tracts.

# Case developments





Chronic liver  
disease

**Cirrhosis**

*Decompensation*

Portal  
hypertension

Hepatic  
failure

Features of chronic  
liver disease

- **Encephalopathy**
- **Coagulopathy**
- **Hypoglycaemia**

# Case summary - history & examination

19-years old

—————→ Increases risk of IBD

2 weeks

—————→ Less likely to be infective

Thin, not cachectic

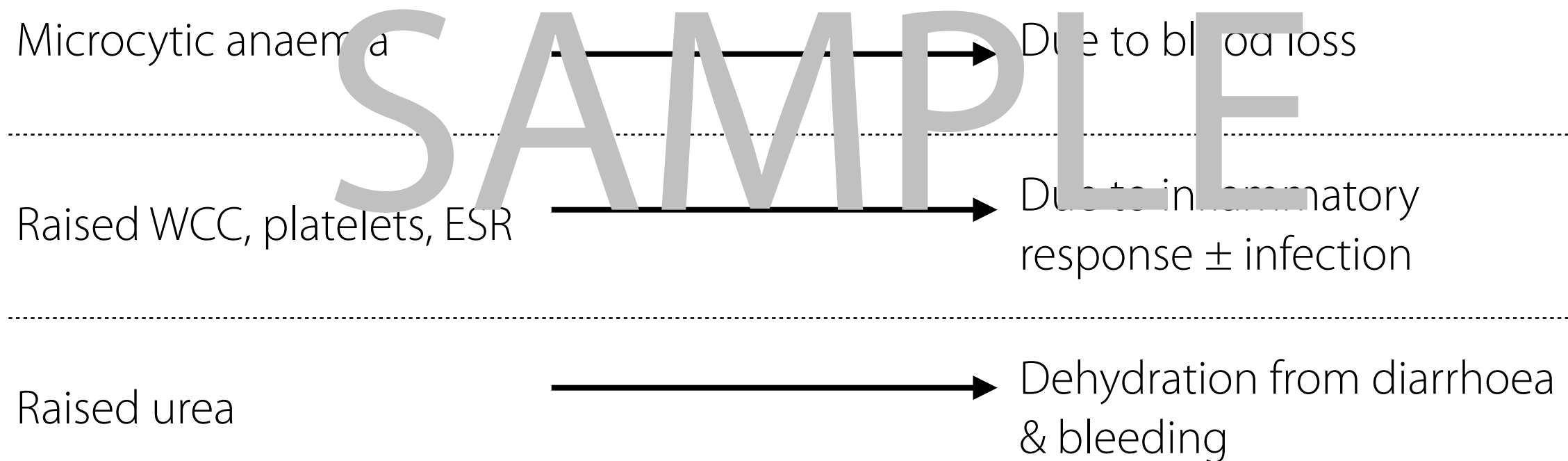
—————→ Less likely to be Crohn's

Mildly tender abdomen

—————→ Not life-threatening colitis

SAMPLE

# Case summary - investigations



# Case summary - developments

HR 142, BP 70/48, CRT = 4s → Septic shock due to pneumonia with neutropenia

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Neutrophils = 0.1 → Agranulocytosis due to azathioprine

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ALP 856, bili 78, ALT 82 → PSC associated with UC

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Dilated intrahepatic ducts → Obstruction to bile drainage

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Anti-mitochondrial antibody negative → Not PBC

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'Onion skin' fibrosis → Cirrhosis due to PSC

# Exam tips

When you read...	Think about...
Tender bruises on shin	Erythema nodosum
'Skip lesions' on colonoscopy	Crohn's disease
Transmural inflammation with granulomas	

# Exam tips

When you read...	Think about...
Positive anti-mitochondrial antibody	Primary biliary cirrhosis
'Beads on a string' appearance on ERCP	Primary sclerosing cholangitis

# Additional points

- Acute colitis: do abdominal XR for **toxic megacolon** (dilated transverse)
- **Low TPM** predispose patients to neutropenia with azathioprine
- **Surveillance colonoscopy** needed for all IBD with colitis and PSC patients
- **Ursodeoxycholic** acid used to help biliary drainage patients with PSC and PBC