Question 8

You are the F1 on-call on for general surgery at General Hospital. The consultant is Dr Tokell.

Your bleep number is 1109.

Patient details

Name: Leonard Jensen

DOB: 21/06/1955

Patient number: X15101999

History

Leonard has attended the surgical assessment unit with generalised abdominal pain, nausea, and vomiting. His bowel pain has lasted for approximately 2 days and has worsened, and he has experienced 2 episodes of vomiting all within the last 2 hours. He has not opened his bowels for 2 days and is no longer passing flatus. He has had a previous hernia repair and appendectomy in 2007.

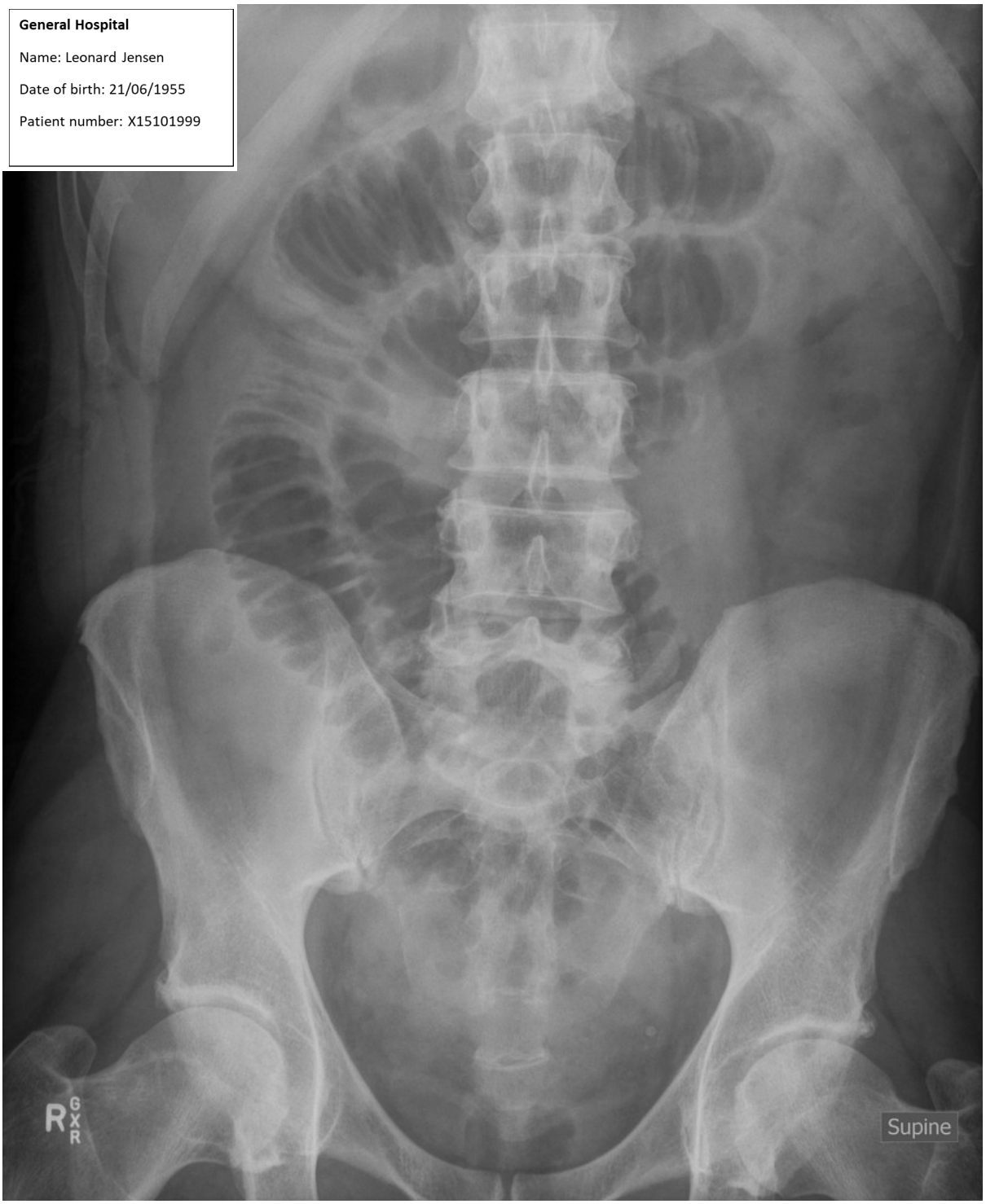
On examination his abdomen is diffusely painful on palpation and appears distended and is resonant to percussion. He has no other abnormal examination findings.

Investigations

Blood pressure	100/74 mmHg
Pulse	104 beats per minute
Respiratory rate	20 breaths per minute
Oxygen saturation	99% (room air)
Temperature	36.2 degrees Celsius

Task

Report the abdominal x-ray systematically, suggest the most likely diagnosis and write a brief plan for the initial management of this patient. The x-ray was taken 1 hour ago today.



Hospital: General Hospital **Patient name:** Leonard Jensen

Ward: *SDU* Date of birth: 21/06/1955

Consultant: Dr Tokell Hospital number: X15101999

Date/Time	Documentation
02/04/2023	TERESA SNOOK, FY1 SDU, BLEEP 1109
1000	Report on abdominal x-ray of patient Leonard Jensen
i.e. today's date and time	Patient number X15101999.
	Indication: acute onset nausea, vomiting, abdominal pain,
	absolute constipation
	AP supine abdominal x-ray, taken today 1 hour ago
	Whole abdomen visible, exposure adequate.
	Bowel: central dilated loops of small bowel noted with
	visible valvulae conniventes
	Bones: no bony abnormalities seen
	Calcification: no calcifications identified

	No other artefacts.
	Impression: small bowel obstruction likely secondary to
	abdominal adhesions from previous abdominal surgery
	Plan:
	For senior review
	ABCDE assessment
	For nil by mouth
	Initiate IVT therapy and NG Ryles tube insertion (drip and suck)
	Prescribe appropriate analgesia
	TERESA SNOOK, T.SNOOK, FY1 SDU
	BLEEP 1109

BOWEL OBSTRUCTION ADDITIONAL INFORMATION

- Bowel obstruction refers to when the passage of food, fluids and gas, through the intestines becomes blocked. It is a **SURGICAL EMERGENCY**.
- Small bowel obstruction is more common than large bowel obstruction
- KEY CAUSES to remember for your exams
    - Adhesions (mainly small bowel) from previous abdominal surgeries
    - Hernias (mainly small bowel)
    - Malignancy (mainly colorectal)
- Other causes may include: volvulus, diverticular disease, strictures and intussusception
- Clinical features include
    - Vomiting, abdominal distension, abdominal pain, absolute constipation and lack of flatulence, tinkling bowel sounds
- Radiological findings
    - The key finding on an abdominal X ray is **distended loops of bowel**
    - The upper limits of normal diameter of bowel are

        - 3cm small bowel, 6cm colon, 9cm caecum (**369 rule**)
    - **Valvulae conniventes** are mucosal folds which may be seen in **small bowel obstruction** – these are seen as lines extending across the entire width of the bowel
    - **Haustra** are pouches formed by the muscles in the **large bowel**, forming lines which do not extend across the full width of the bowel.
- As with any acutely unwell patient, start with an ABCDE approach.
- The initial management of bowel obstruction is typically described as 'drip and suck'
    - Nill by mouth (NBM)
    - Intra-venous fluid therapy (IVT) to rehydrate and correct electrolyte imbalances
    - Nasogastric (NG) tube with free drainage to allow stomach contents to freely drain and reduce the risk of vomiting/aspiration (Using a ryles tube)

For further information please see the following resources on bowel obstruction:

Bowel Obstruction - Causes - ManagementTeachMeSurgeryhttps://teachmesurgery.com › ... › Presentations

For your WriSkE and clinical exams, it is particularly good to familiarise yourself with common radiological features, as these will form the basis of your interpretation and score you the marks:

https://radiopaedia.org/articles/bowel-obstruction?lang=gb

https://geekymedics.com/abdominal-x-ray-interpretation/

Original image provided by Radiopedia at: https://radiopaedia.org/images/47121058?case_id=66670