The management of complex hernias

This webinar will start shortly.

The management of complex hernias

Zoom webinar – Tuesday 18 March 2025 - 6:30pm to 8:00pm

Acknowledgement of traditional owners

We acknowledge the Tasmanian Aboriginal people as the traditional owners and ongoing custodians of the land on which we are meeting today. We pay our respects to Elders past and present.

We would also like to acknowledge Aboriginal people who are joining us today.

Learning outcomes

After this session, I will be able to:

- Know the risk factors for the development of complex hernias, and strategies for pre-optimisation
- Be familiar with the work-up of complex hernias and their management
- Recognise the emergency presentations of complex hernias

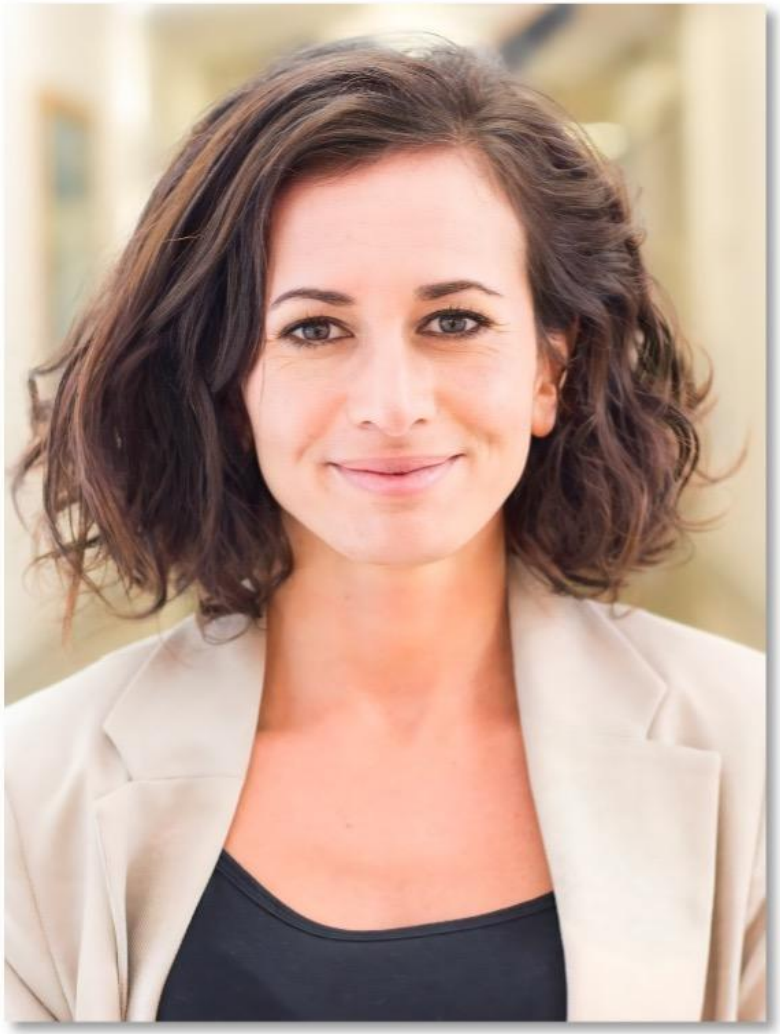
Some housekeeping

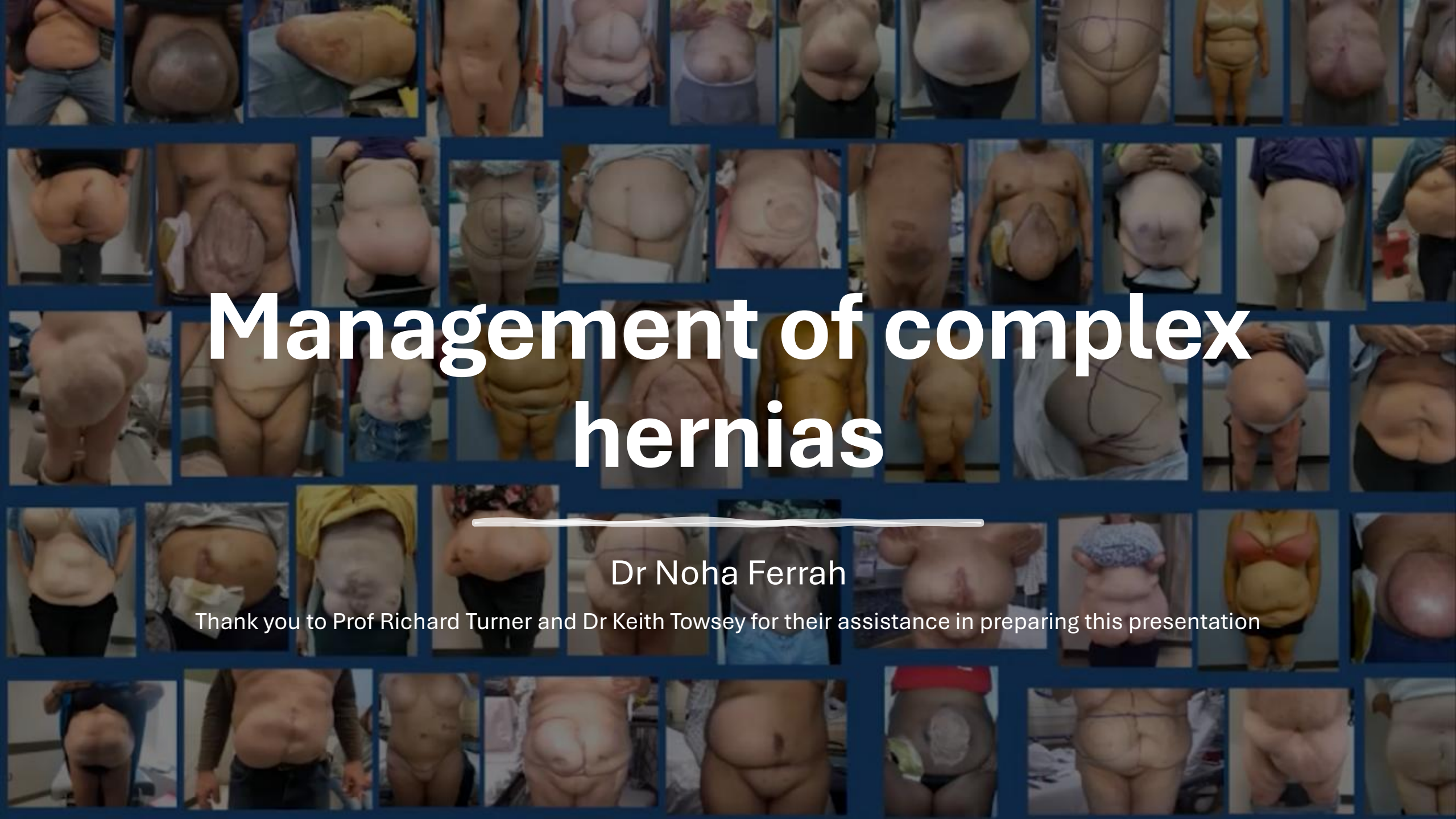
- Tonight's webinar is being recorded
- Please use the Zoom Q&A feature to ask questions
- At the end of the webinar your browser will automatically open an evaluation survey. We appreciate you taking the time to complete this to help us improve our events programme
- Please don't forget to register for your next webinar at: https://www.primaryhealthtas.com.au/for-health-professionals/events/

Presenter

Dr Noha Ferrah- General Surgeon,

Tasmanian Health Service - South





Management of complex hernias

Dr Noha Ferrah

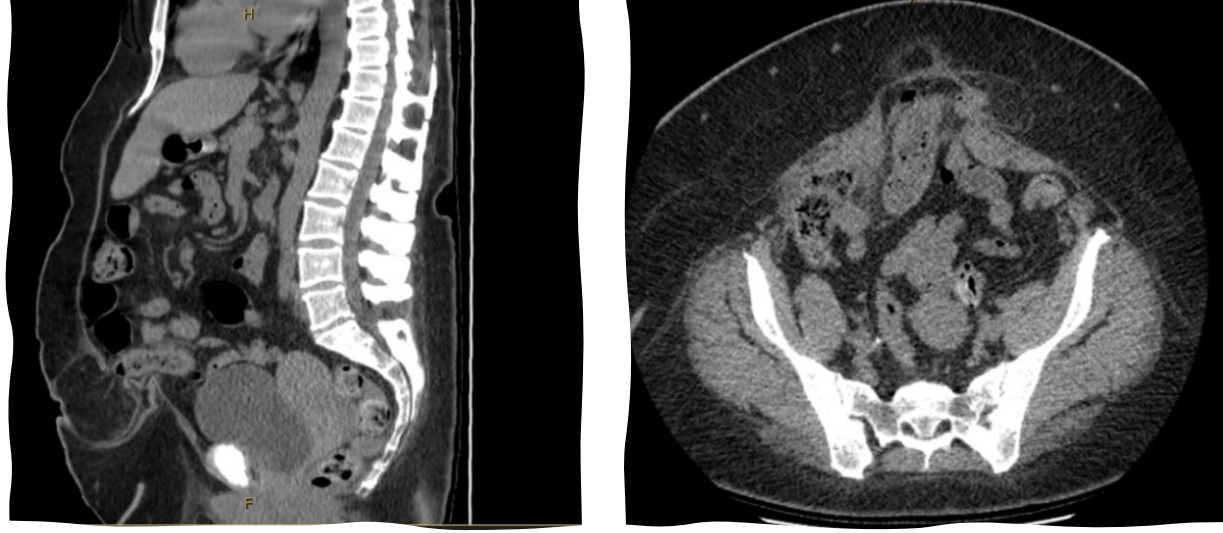
Thank you to Prof Richard Turner and Dr Keith Towsey for their assistance in preparing this presentation

Outline

- Case presentation
- Risk factors
- Work up
- Risk assessment
- Pre-optimisation
- Management options
- Surgical techniques
- Post-op care
- Complications
- Emergency presentations

Case presentation

- 56F incisional hernia
  - PMhx
    - BMI 41, T2DM, non-smoker, HTN, OA
  - Prior surgery
    - Abdominal hysterectomy
    - Open appendicectomy



Scope of issue

One of the most common complications after abdominal surgery

Incidence 3 - 20%

Doubles if index operation complicated by wound infection

50% of incisional hernias detected within one year of surgery

Risk of 2% per year

Who is at risk?

Patient factors

- Non-modifyable
  - AAA
  - Connective tissue disorders (Marfan's, Ehlers-Danlos)
- Modifyable
  - Smoking, obesity, T2DM, immunosuppression, nutritional deficiencies

Surgical factors

- Incision site
- Surgical technique

Post-operative factors

- Surgical site infections
- Post-operative ileus, coughing, vomiting

What makes a hernia complex?

- Size of defect
- Location
- Loss of domain
- Contamination
- Foreign material
- Quality of soft tissue

Hernia (2014) 18:7–17
DOI 10.1007/s10029-013-1168-6

ORIGINAL ARTICLE

Criteria for definition of a complex abdominal wall hernia

N. J. Slater · A. Montgomery · F. Berrevoet · A. M. Carbonell · A. Chang · M. Franklin · K. W. Kercher · B. J. Lammers · E. Parra-Davilla · S. Roll · S. Towfigh · E. van Geffen · J. Conze · H. van Goor

Size & Location	Contamination & Soft Tissue	History & Risk Factors	Clinical Situation
≥ 10 cm in width	Class III or IV	Recurrent, prior mesh, prior C/S	Emergency
Parastomal, lumbar, lateral and subcostal locations of hernia	Full-thickness abdominal wall defects	**RFs for wound healing, ie obesity, DM, age**	Intra-peritoneal mesh removal
Loss of domain ≥20%	Distorted anatomy	Increase intra-abdominal pressure	Multiple defects
	Denervation	Prior wound dehiscence	Component separations
	Other: skin grafts, wound ulcers/non-healing, open abdomen, disease-related, enterocutaneous fistula	Prior mesh infection	

Complex Hernia Service – RHH

- Incisional hernias
- Recurrent hernias
- Primary (no previous surgery) midline hernias >4cm
- Unusual locations eg. flank, subcostal, diaphragmatic
- Parastomal hernias
- Large inguinoscrotal hernias

Work up

Hx

- Impact on ADL
- Prior surgery
- Prior hernia repair
  - Mesh
  - Which layer?
  - Complications – seroma, infection, fistula

Exam

- Bulge in the region of the surgical scar.
- Fascial edges
- Skin changes

CT A/P

- Non-contrast
- IV contrast if concern infection
- Number, size, location of defects
- Rectus diastasis

Who **can** vs who **should** have an operation?

Balance the risk of surgery vs risk of complications if left untreated

Little info on risk of major complications

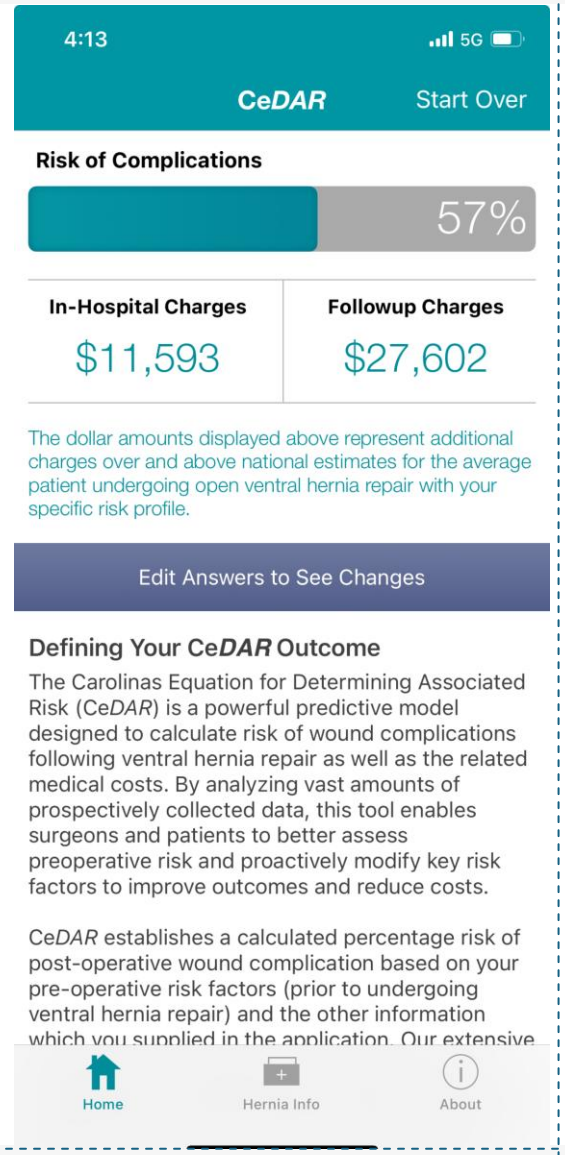
Most hernias will enlarge with time

If patient can safely have GA, and chance of successful repair high, surgery is indicated

If high anaesthetic risk or surgical repair technically difficult, conservative management more appropriate

Risk assessment

- Risk scoring tool
- CeDAR app from Carolinas Healthcare



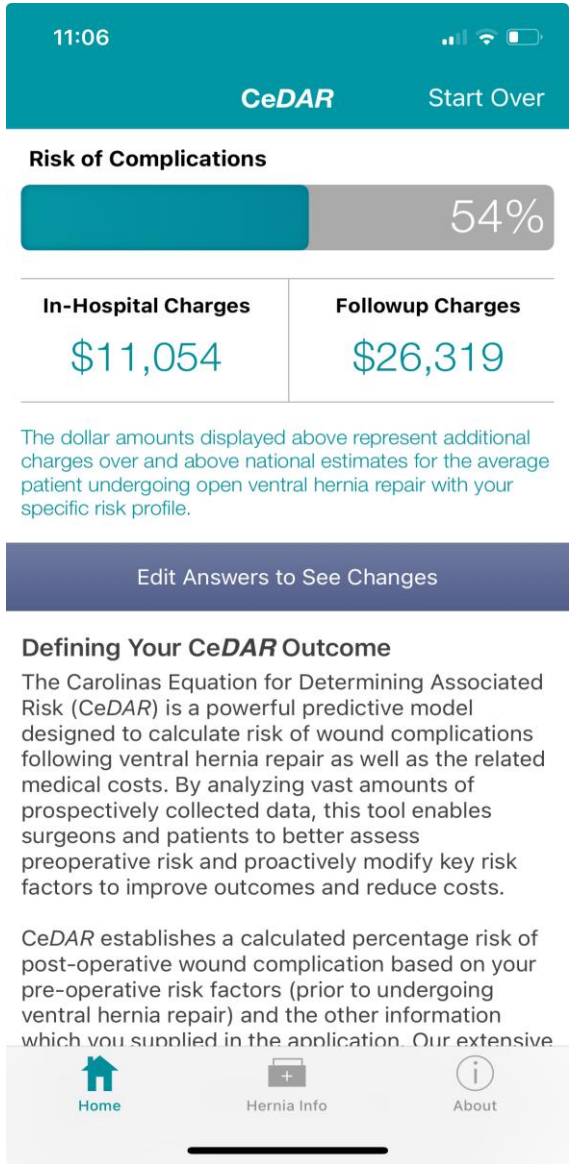
Pre-optimisation

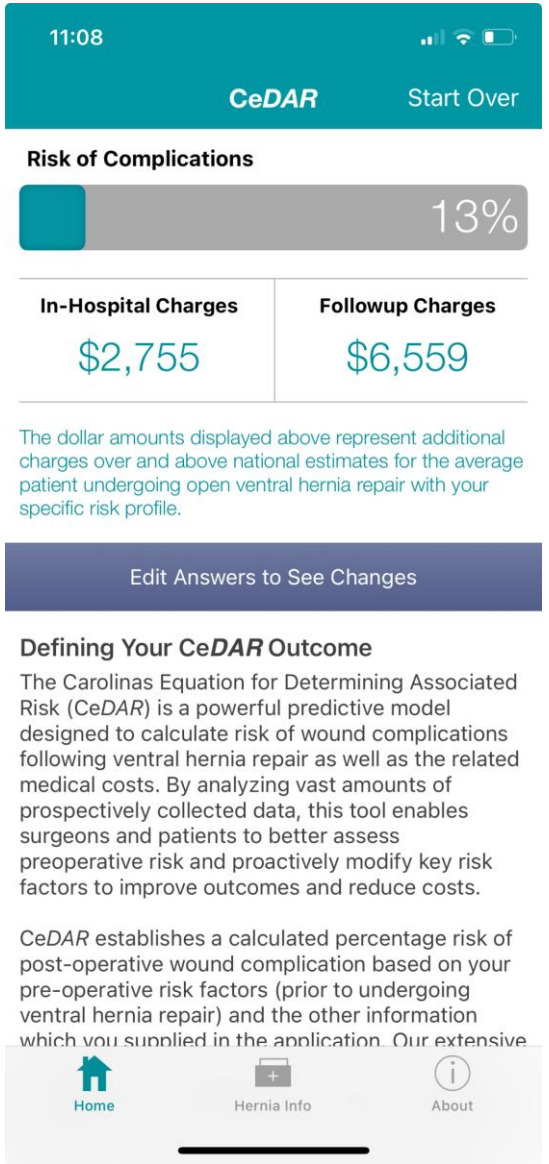
- Risk factors for recurrence and wound complications
    - Obesity (OR 1.08x for each BMI point)
    - Diabetes (OR 2.01x for HbA1C>7.2)
    - Smoking (OR 2.17)
    - Active infection (OR 2.07)
    - Previous repair (OR 2.64)

- Objectives
    - BMI < 35
    - Non–smoker > 4 weeks
    - HbA1c < 7

	Reduction in complications %
BMI reduction	
1 point	6.9
2 points	14.6
3 points	22.8
4 points	31.3
5 points	40.5
Stop Smoking	19.5
HbA1c reduction	
0.5 points	7.7
1 point	8.5

Case presentation





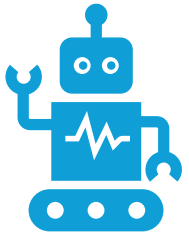
Management options

Non-operative	Watchful wait for small aSx, or large defect and not fit for surgery
Operative	Suture repair (primary hernia <2cm) Mesh repair

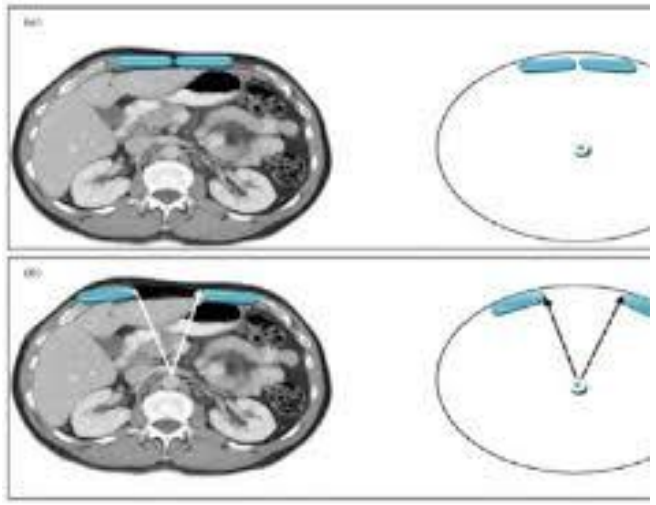
Surgical techniques

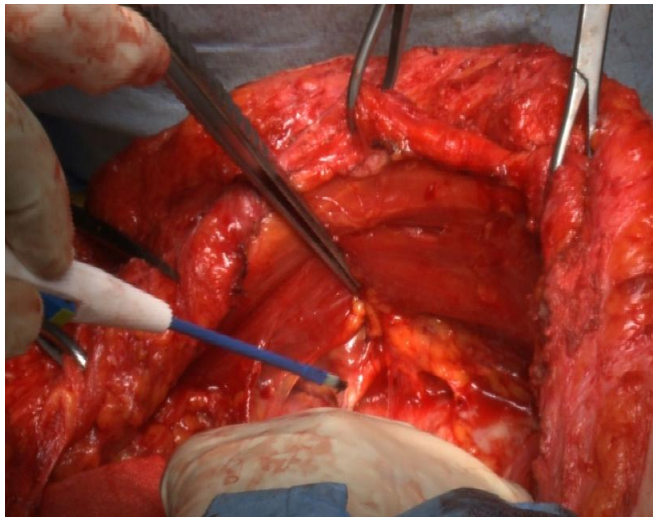
Open

Laparoscopic



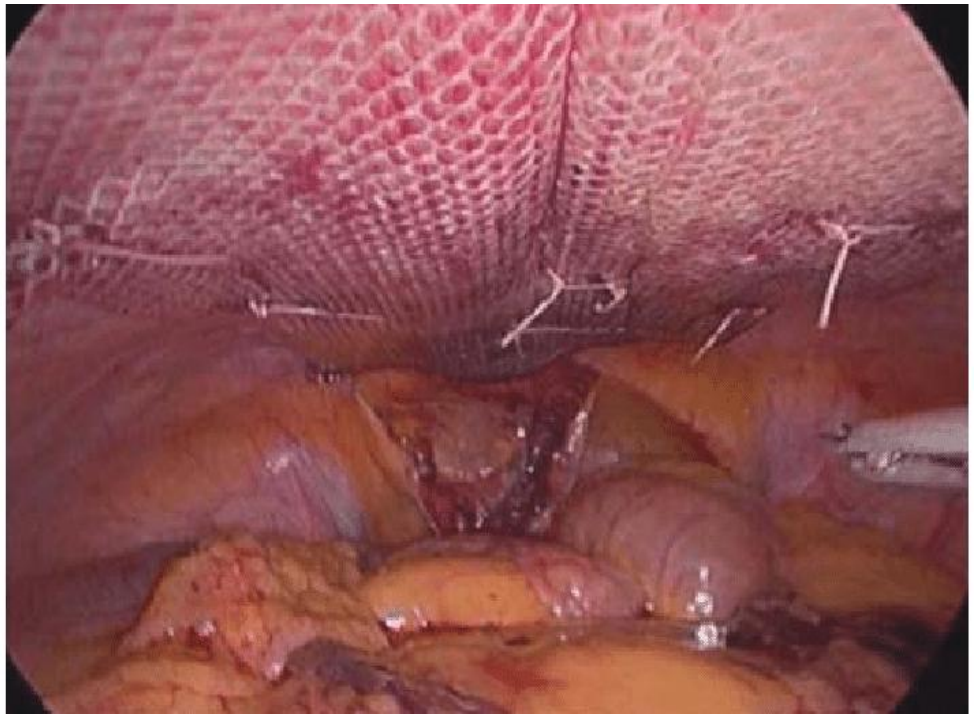
Robotic





Surgical techniques - Open

- Large incisional hernias, excess skin
- Retro-rectus or pre-peritoneal repair
- Component separation
  - For defects >10cm
  - Flap abdo wall mobilised to midline



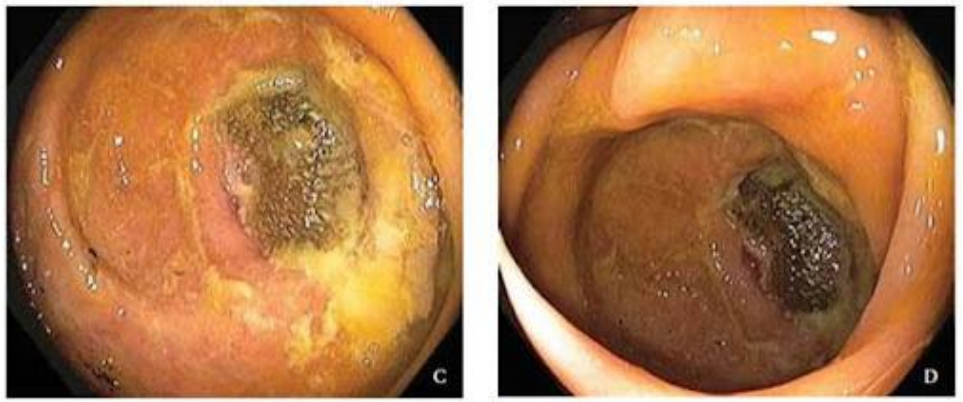


Figure 1 Endoscopic view of mesh-like material protruding through cecal wall (A-D)

Surgical techniques - Laparoscopic

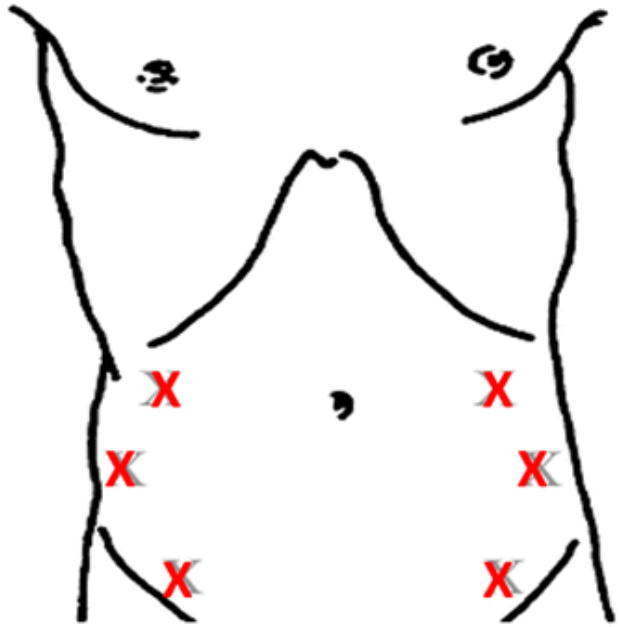
- ‘’IPOM’’
  - Coated mesh to reduce visceral adhesions
  - Placed in intraperitoneal cavity
  - Hernia defect may or may not be closed
- ‘’IPOM + ‘’
  - Pre-peritoneal flap, close defect

Surgical techniques - Robotic

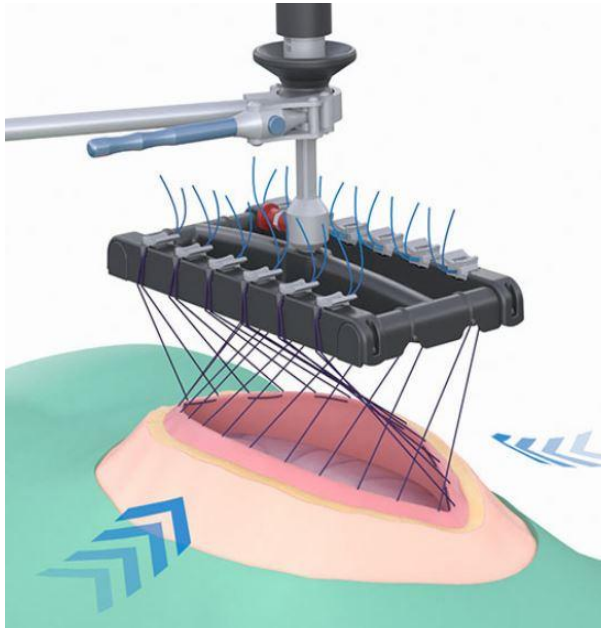
- Similar technique to laparoscopic
- Ergonomic and articulated arms
- Fastest growing use is hernia repair

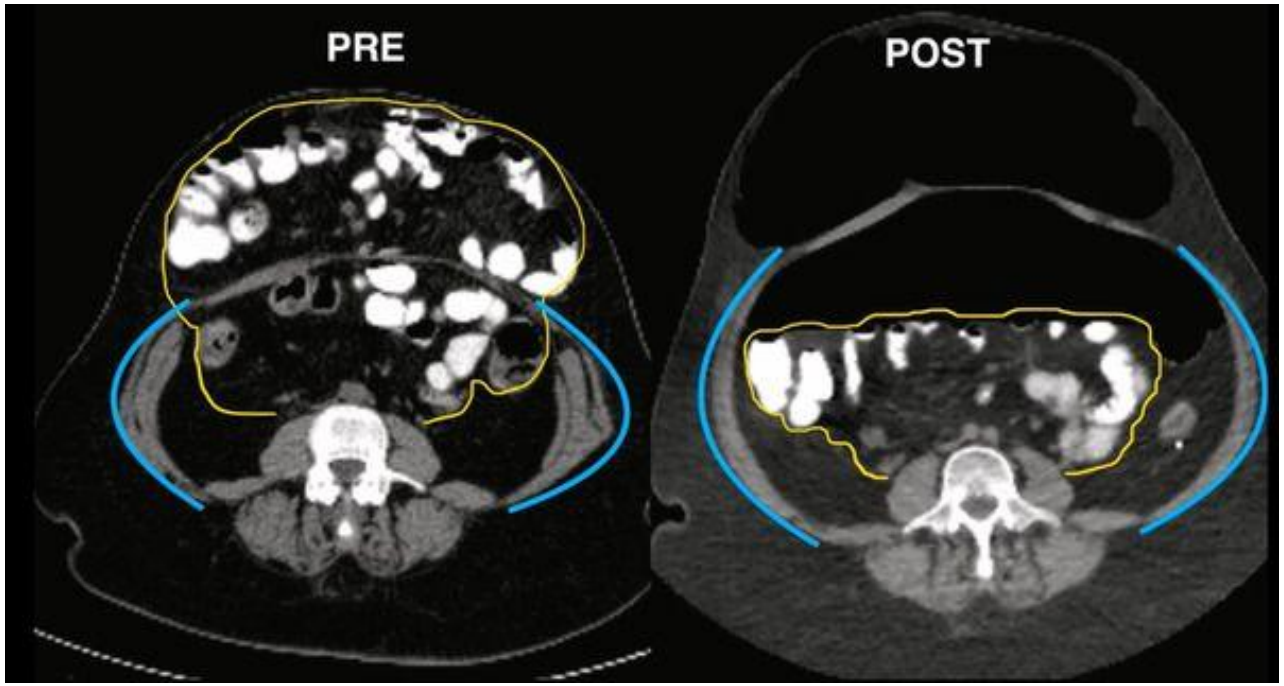
Surgical techniques - Adjuncts

- Botox
- Progressive pneumoperitoneum
- Fasciotens



Smoot *et al.* 2011





Post-operative care

Laparoscopic/Robotic

Open

- Longer length of stay
- Drains
- Binder

Complications

Early

- Haematoma
- Seroma
- Wound infection
- Deep collection
- Enterocutaneous fistula

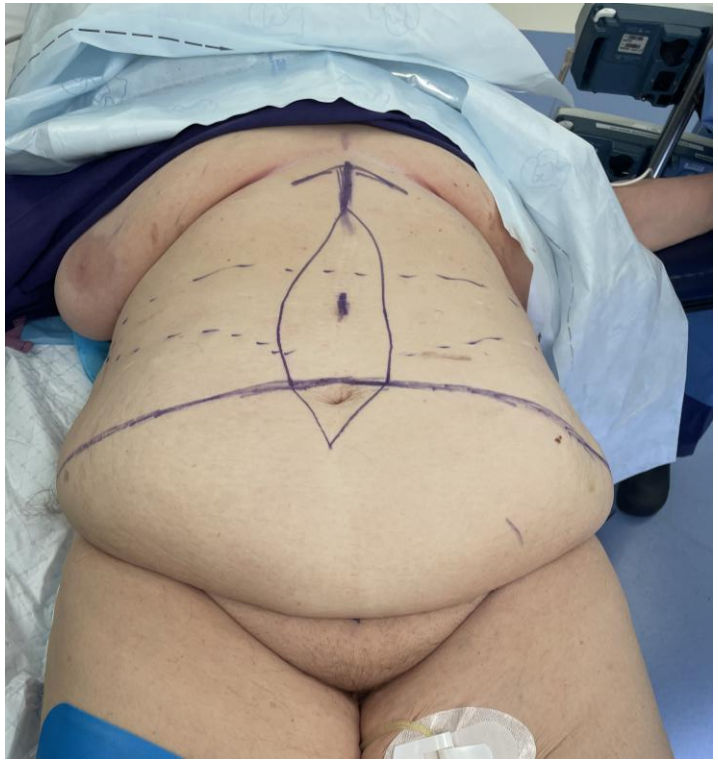
Late

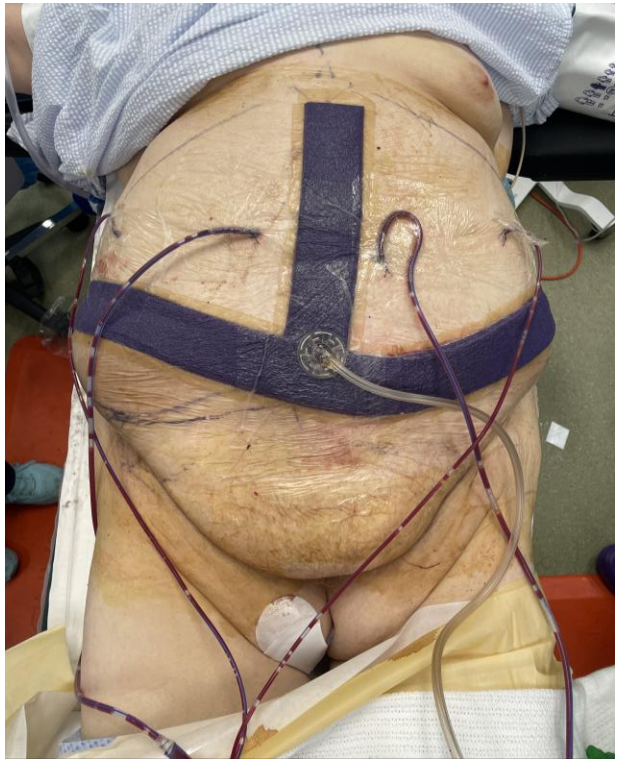
- Mesh infection
- Recurrence
- Chronic pain
  - >6 months post-surgery
  - ~ 10%
  - CT to check for hernia recurrence
  - Refer back to operating surgeon

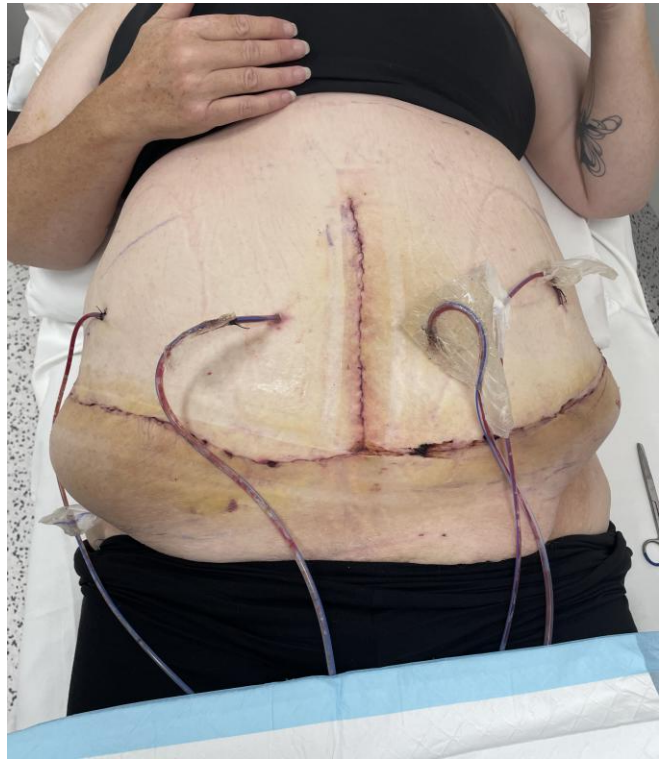
Emergency presentations

- The ‘bowel issue’ and the ‘hernia issue’
- Keep it simple
  - Do what is necessary and nothing more
  - Avoid complexity
  - Don’t burn bridges
  - Avoid mesh if evidence of sepsis
  - Accept risk of recurrence
  - Bring back for elective repair

Case presentation



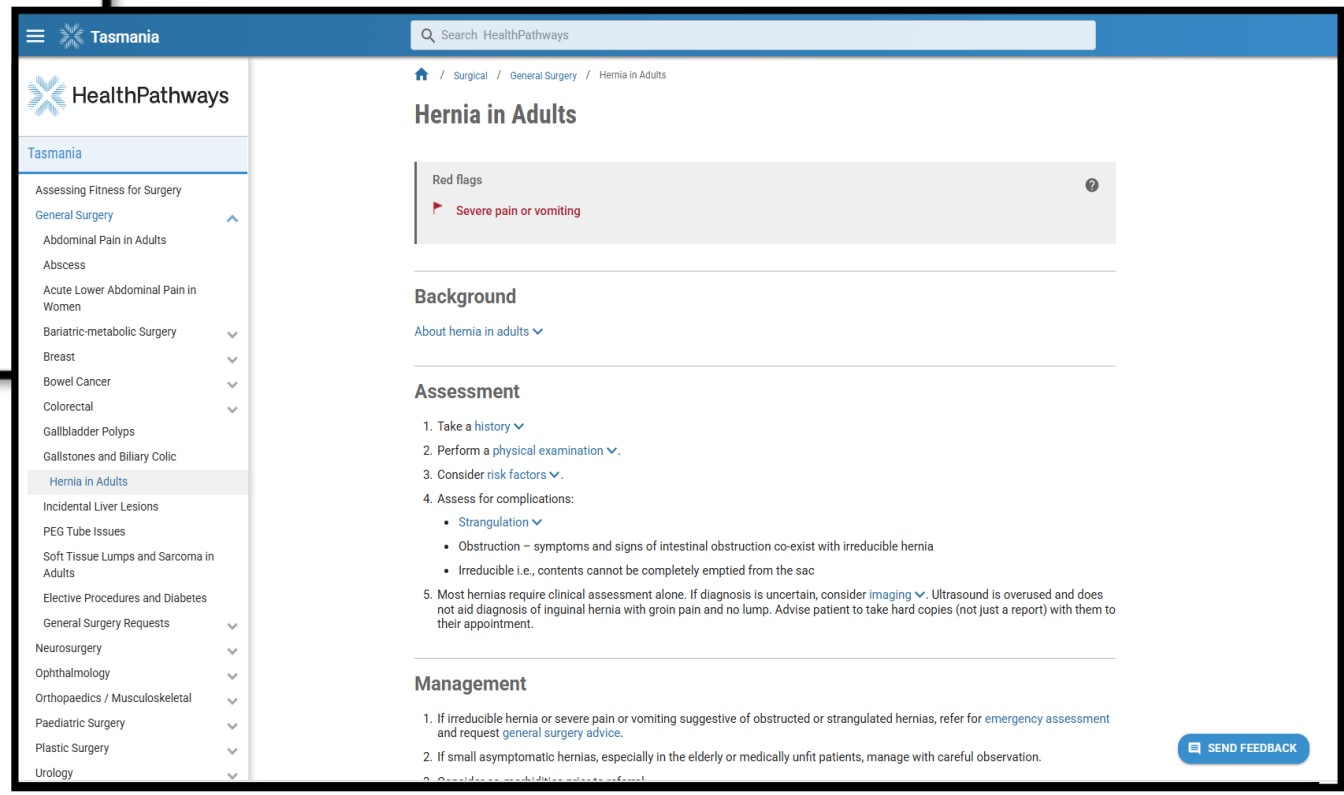




Conclusion

- Resources for patients
  - Videos in Patient area of European Hernia Society website
    - https://europeanherniasociety.eu/patient-area/
  - Patient booklet on epigatric and umbilical hernia
- THP Referral pathways
- Calvary Health care - Montagu House
  - 49 Augusta road Lenah Valley TAS 7008
- Questions ?

Tasmanian HealthPathways



For access to the Tasmanian HealthPathways,

Please email:

Healthpathways@primaryhealthtas.com.au

Tasmanian HealthPathways

Update- New personalised accounts

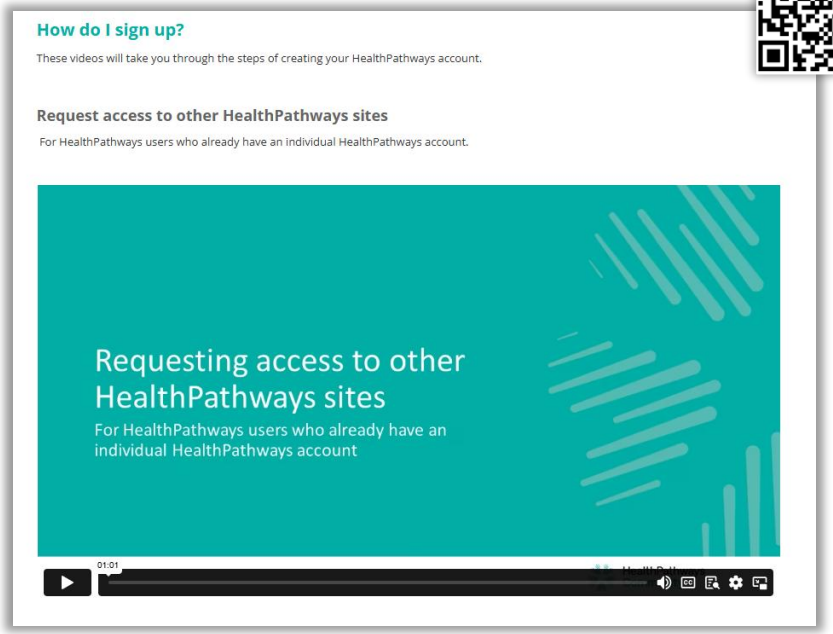
Scan to learn more

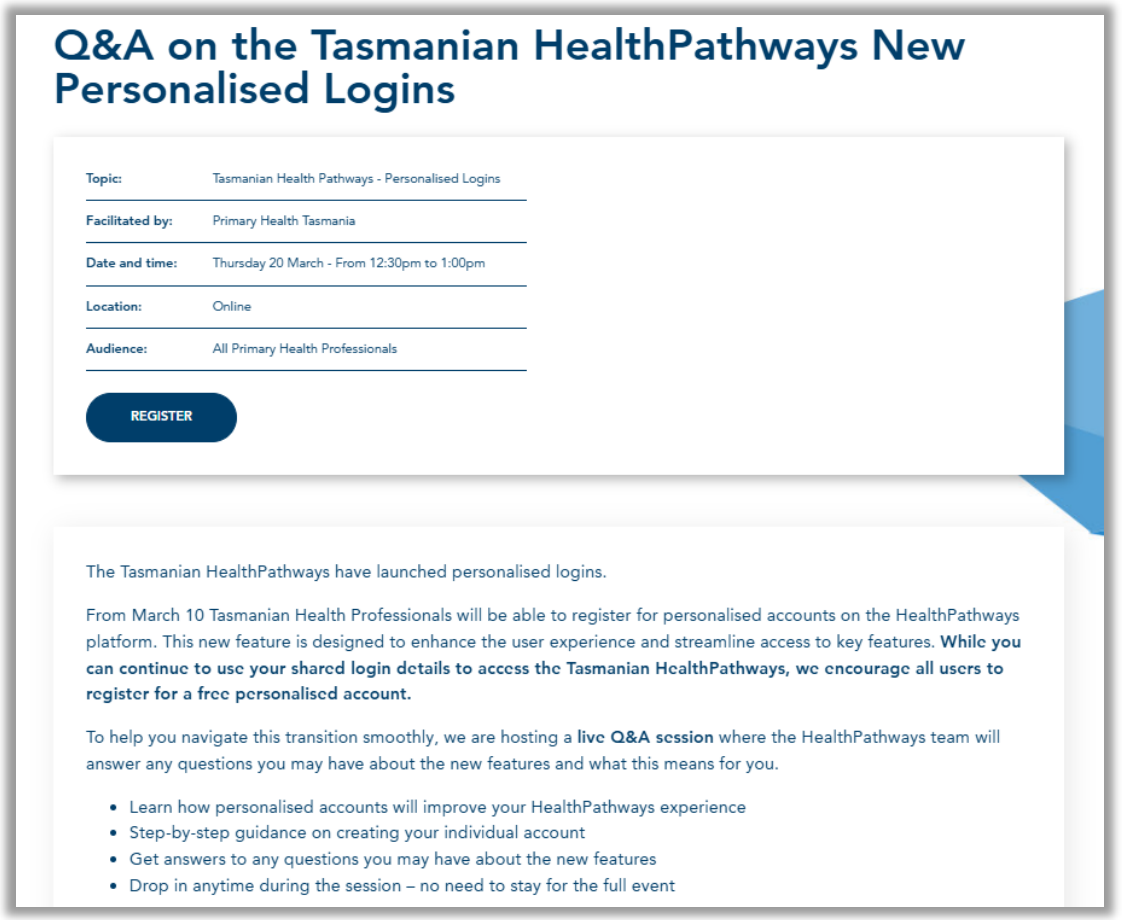
From 10th March 2025, HealthPathways introduced personalised accounts.

Users will be logged out and prompted to register for a new personalised account.

Have a question? Contact the Tasmanian HealthPathways team HealthPathways@primaryhealthtas.com.au

Click here to learn more





Q&A on the Tasmanian HealthPathways New Personalised Logins

Topic:	Tasmanian Health Pathways - Personalised Logins
Facilitated by:	Primary Health Tasmania
Date and time:	Thursday 20 March - From 12:30pm to 1:00pm
Location:	Online
Audience:	All Primary Health Professionals

REGISTER

The Tasmanian HealthPathways have launched personalised logins.

From March 10 Tasmanian Health Professionals will be able to register for personalised accounts on the HealthPathways platform. This new feature is designed to enhance the user experience and streamline access to key features. **While you can continue to use your shared login details to access the Tasmanian HealthPathways, we encourage all users to register for a free personalised account.**

To help you navigate this transition smoothly, we are hosting a **live Q&A session** where the HealthPathways team will answer any questions you may have about the new features and what this means for you.

- Learn how personalised accounts will improve your HealthPathways experience
- Step-by-step guidance on creating your individual account
- Get answers to any questions you may have about the new features
- Drop in anytime during the session – no need to stay for the full event

Tasmanian HealthPathways

To help you navigate this transition smoothly, we are hosting three **live Q&A sessions** where the HealthPathways team will answer any questions you may have about the new features and what this means for you.

Thursday 20 March: 7:00-7:30am
Thursday 20 March: 12:30-1:00pm
Thursday 27 March: 7:00-7:30pm

Some final words

- After this webinar end, your browser will open a link to an evaluation survey.
- Statements of attendance will be emailed to participants.
- For event queries, please contact events@primaryhealthtas.com.au

Thank you

Disclaimer

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