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AI x TARPSWG

Opportunities | Caveats | Springboard

VISION

Question

Can we enhance access to evidence-based sarcoma care through an AI-enhanced knowledge interface and real-time data exploration?

APPROACH

Innovation to benefit our patients and our community

Maximise benefits

Interactive

Personalisable

Efficient

(Agentic)

Minimise risks

Stepwise

Trust and governance central

Accountable

Transparent

PROPOSAL

Stage 1: AI-enhanced exploration of existing publications

Stage 2: Static data dashboard for cleaned RESAR data

Stage X: Expansion of AI-elements targeted to community needs



Risk



Benefit



Complexity

STAGE 1: RESAR DASHBOARD



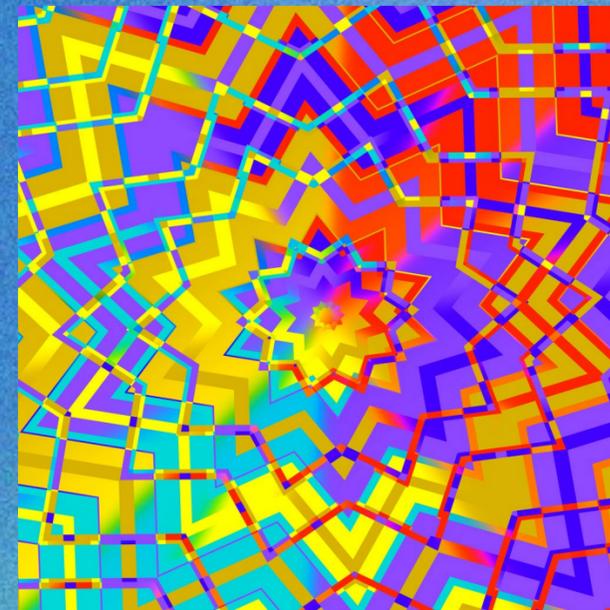
Evidence library

TARPSWG group publications
Other high quality sources
Crowdsourced



Tool developing

Notebook LLM library
Constrained
Referenced



Pilot testing

Iterative feedback
Chatbot interface
Multimedia outputs



Data driven

Usage analytics
Share use cases
Document impact

STAGE 1: RESAR DASHBOARD

The screenshot displays the TARPSWG ResAR Dashboard interface, which is divided into three main sections: Sources, Chat, and Studio.

- Sources Panel:** Located on the left, it features a search bar with the text "Search the web for new sources" and options for "Web" and "Fast research". Below the search bar is a list of sources, each with a PDF icon and a checkmark, indicating they are selected. The sources include:
 - Analysis-of-differentiation-changes-...
 - Distal pancreatectomy morbidity in R...
 - Ganglioneuromas.pdf
 - Management of locally recurrent RPS...
 - Management of metastatic retroperit...
 - Management of multifocal and metas...
 - Management of primary RPS.pdf
 - Morbidity after RPS resection.pdf
- Chat Panel:** Located in the center, it shows a chat history with a single message: "How long should I monitor a pelvic schwannoma for and when should I take it out". Below the chat history is a text input field with the placeholder "Start typing..." and a "17 sources" indicator.
- Studio Panel:** Located on the right, it contains various interactive tools and content. The tools include:
 - Audio Overview
 - Slide deck (marked BETA)
 - Video Overview
 - Mind Map
 - Reports
 - Flashcards
 - Quiz
 - Infographic (marked BETA)
 - Data tableBelow the tools, there are two content cards:
 - "Histology Drives Destin..." with 17 sources and 3d ago.
 - "Management Protocols for..." with 17 sources and 3d ago.At the bottom right of the Studio panel is an "Add note" button.

At the top of the dashboard, there is a notification: "Chat history is now saved across sessions, delete it here". Other top navigation elements include "Share", "Settings", and a user profile icon labeled "M".

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- Chat Panel:** Located in the center, it contains a text input field with the question: "What has a worse prognosis, mesenteric or retroperitoneal liposarcoma and how does their pattern of metastatic disease differ". Below the input field is a "Start typing..." placeholder and a "17 sources" indicator.
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STAGE 2: RESAR DATA VIEWER

What?

Static, locked dataset

Anonymised

Start simple

Rationalised data

Efficient



Real-time



Why?

Accessible



Controlled



cancer.globalsurg.org/



ssi.globalsurg.org/

STAGE 2: RESAR DATA VIEWER

GlobalSurg 3 data explorer

Bookmark...

Explanatory variable:
 Cancer type
 Smoking
 Diabetes
 HIV
 Mode of diagnosis
 Distance to home (km)
 First consultation
 Cancer type
 Ultrasound

Remove from outcome: Unknown Missing

Remove from explanatories: Missing Unknown

Reverse order: Explanat. Split Outcome

Shift outcome levels:
 0 6

Plot Width (%)
 20 80 100

Plot Height (px)
 100 400 1,000

Subsetting: Cancer type

Colour palette:

Plot Variables Abstract

Alive Dead

| Explan. | Split | Dead | Alive | total | Dead_% | Alive_% |
|------------------------------|--------|------|-------|-------|--------|---------|
| Breast | Male | 0 | 87 | 87 | 0.00 | 100.00 |
| Breast | Female | 16 | 8224 | 8240 | 0.19 | 99.81 |
| Colorectal (colon or rectum) | Male | 119 | 3316 | 3435 | 3.46 | 96.54 |
| Colorectal (colon or rectum) | Female | 84 | 2622 | 2706 | 3.10 | 96.90 |
| Gastric (stomach) | Male | 50 | 752 | 802 | 6.23 | 93.77 |
| Gastric (stomach) | Female | 21 | 488 | 509 | 4.13 | 95.87 |

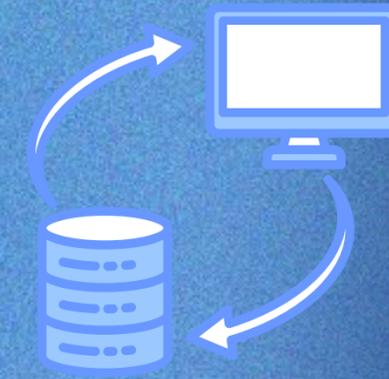
Accessible
patient
information



Agentic 'first
pass' drafts



STAGE X THE FUTURE



Agentic data
collection

Live data dashboard
to RESAR (e.g., API)



'Impact kits'

SUMMARY

Opportunity to leverage frontier AI in sarcoma surgery

Today = sense check

Quality assurance and trust critical

We suggest a stepwise approach

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