

Missing from the record

A baseline audit of screening data availability for women living with HIV

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Background:

Women living with HIV (WLWH) have increased risk of multiple comorbidities, including breast and cervical cancer, osteoporosis, bone fractures and cardiovascular disease (CVD). Despite recommendations, many women have missing or out of date screening in their medical records.

Approach:

An audit of screening data, recorded within clinical notes, was conducted for WLWH, focusing on assigned female at birth. Rule-based text search was used to identify sentences containing key terms and phrases, summarised in table 1, and categorised as performed or not performed.

Screening Test	Key Terms and Phrases
Fracture risk	FRAX
Breast screen	mammogram, breast
Cervical cancer screen	CST, cervical screen, LBC, liquid based, pap, HPV Screen
CVD risk	CVD, Framingham, cardiovascular risk

Table 1: Rule-based text search terms used to identify each screening test within clinical notes

Records with unclear or non-estimable dates were excluded.

Results:

There were 145 women reviewed, with a median age of 49 years (IQR 42-56). 31 (21%) had a CST test documented in the last 3 years. Of the 114 women over 40 years old, 7 (6%) had a FRAX and 24 (21%) had a CVD risk estimate documented in the last year.

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Of the 72 women over 50 years old, 18 (25%) had documentation of a mammogram in the last 2 years.

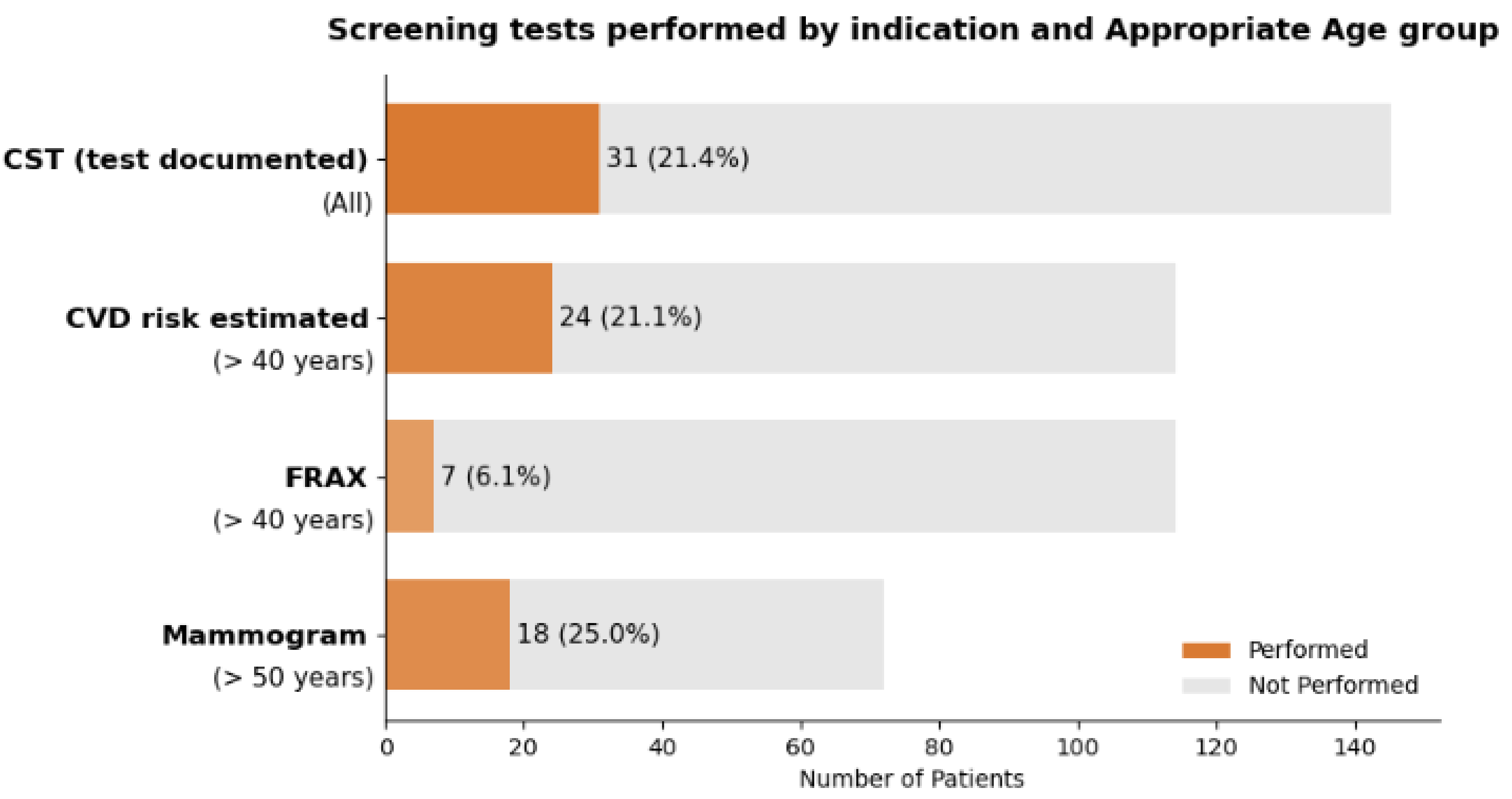


Figure 1: Tests performed displayed by age range in comparison to available cohort

Innovation:

With clinical audits being so resource intensive, the aim is to provide clinicians a tool with no manual auditing requirements.

Natural language processing (NLP) can be used to automate sentence review and allow for a fully automated pipeline of real time data to be displayed in a dashboard.

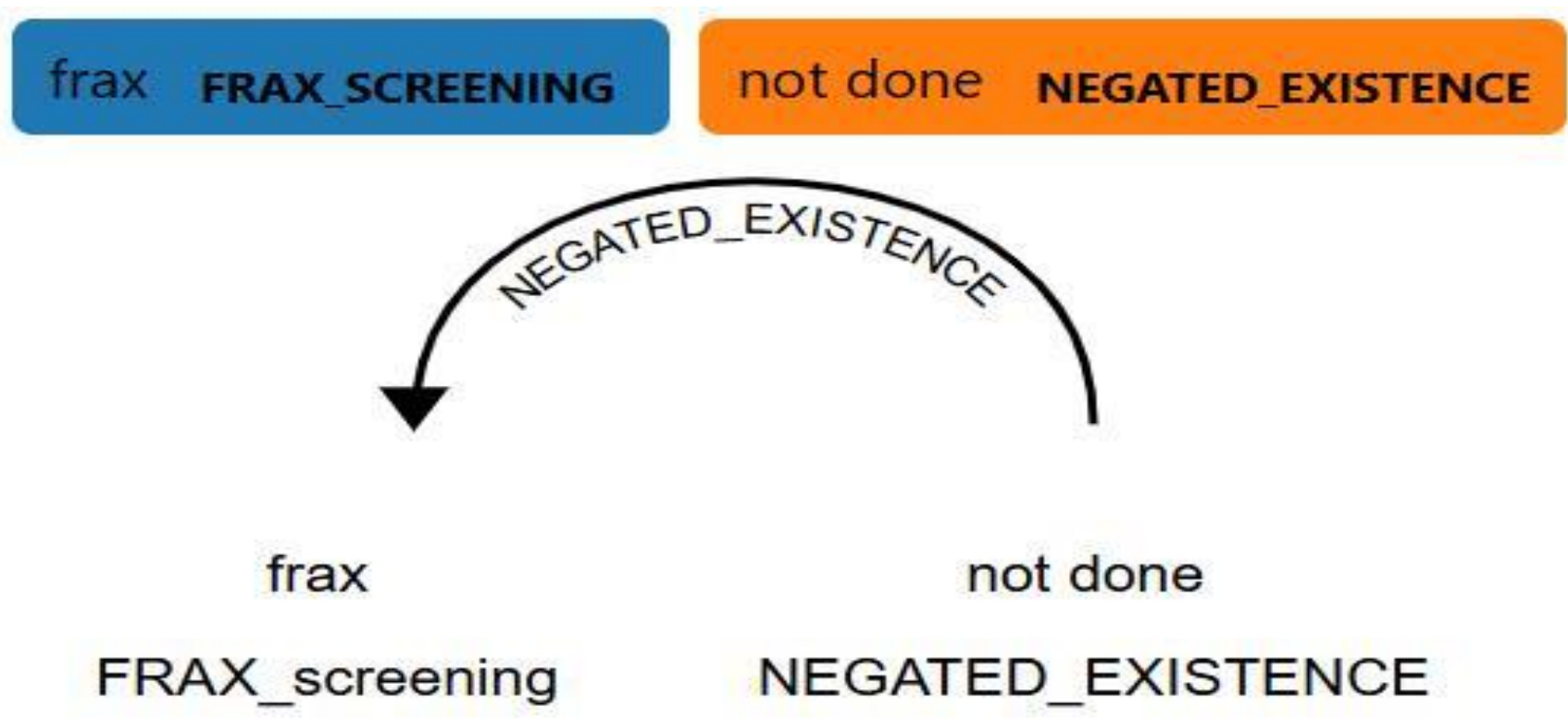


Figure 2: Visual example of a NLP application ingesting the sentence "frax not done" and categorising as negated

Conclusion:

The results show screening rates among WLWH are suboptimal and likely obscured by incomplete documentation. Providing data driven tools to identify screening rates will hopefully improve this gap for in care for WLWH.