



Care and support  
through terminal illness



## AnticiPal: Searching GP records and care-planning in the community

Bruce Mason<sup>1</sup>, Kirsty Boyd<sup>1</sup>, John Steyn<sup>2</sup>,  
Marilyn Kendall<sup>1</sup>, Stella Macpherson<sup>3</sup>,  
Scott A. Murray<sup>1</sup>



1. University of Edinburgh, 2. NHS Lothian, 3. PPI representative



THE UNIVERSITY of EDINBURGH

Edinburgh & Lothians  
Health Foundation



# AnticiPal

- Developing an algorithm to search UK GP databases
- 1: 2013-14. Test the concept with a search template informed by Supportive and Palliative care Indicator Tool (SPICT).<sup>1</sup>
- 2: 2015-2017. Testing a “data extract module” over an extended period in eight GP surgeries.
  - Plug-in to current software
  - Run on demand: “app” model.
  - Disseminate to NHS Lothian practices as part of a Redesign Programme

# GP databases

Searchable list of Read codes based on consultation outcomes.

## Malignancy codes

Within last 18 months

- E.g. Malignant neoplasm of bronchus or lung (B22z)

## Other single Read codes

Entered at any time

- E.g. Frailty (2Jd)

## Combination codes

Entered any time

- E.g. Heart Failure AND (CKD 4 OR CKD 5) AND COPD.
- G58% AND (I213 or K054 or I214 or K055) AND (H3; or H31% excl H3101 or H31y0 or H3122; or H32%; or H36-H3z (excl H3y0 or H3y1); or H5832

# Case finding for new cases living at home

- Exclusion: patient already on a palliative care register
- Exclusion: patient living in a care home.

# Principles

## On-demand

- search is run by clinicians when they want it.

## Up to date

- search is run on live data in the GP database.

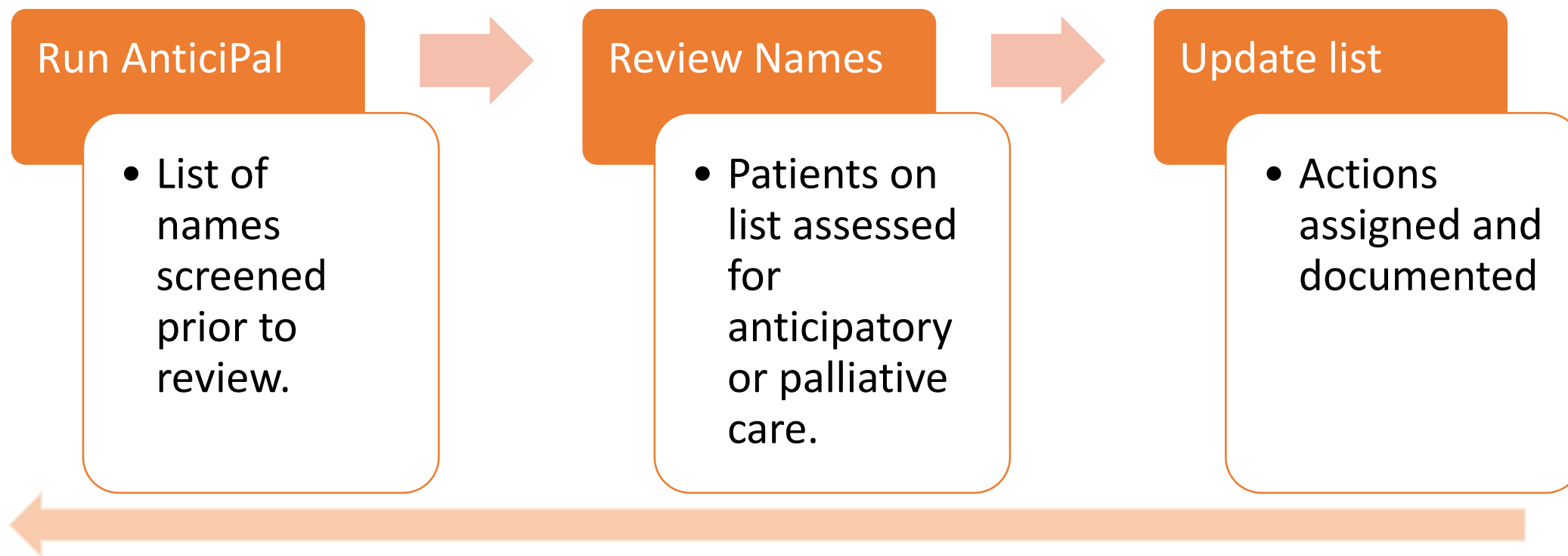
## Simple

- Easy to run and simple output

## Supplemental

- does not replace clinician judgement.
- List not scored or ranked in any way.

# AnticiPal Process



# Outcomes

## Palliative care

- Patient considered in need of generalist or specialist palliative care.
- Patient added to palliative care register

## Anticipatory care

- Patient could benefit from additional anticipatory care or is “pre-palliative”
- Anticipatory care plan started or reviewed

## Current care

- Patient has anticipatory care in place and does not need any additional input but is at risk of unexpected deterioration.
- Patient left on list with no action taken.

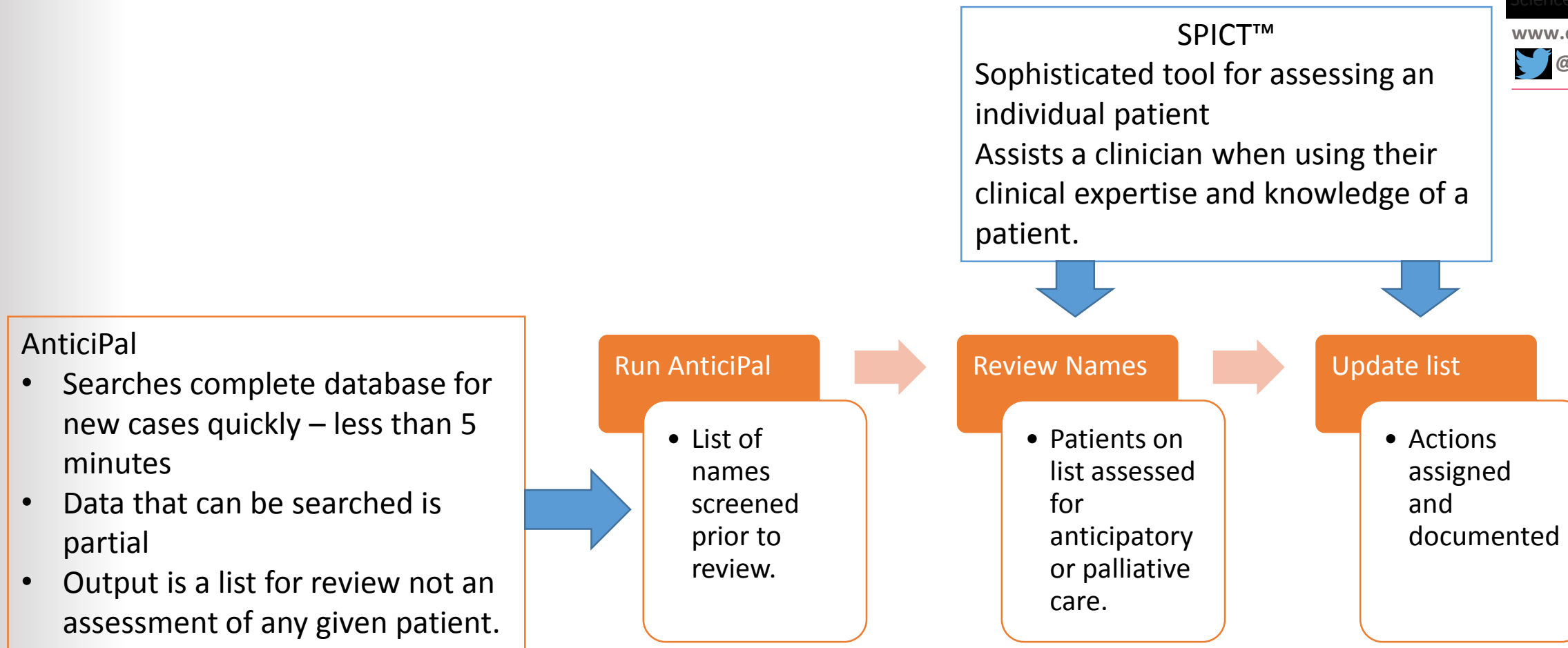
## No need to review

- Patient does not need reviewing unless something changes.
- Patient is removed from list for 1 year unless a new triggering code is added.

## Inappropriate

- Patient should not be on list.
- Removed from list and coding checked for errors. Will not be matched again unless a new code triggers.

# Integrating SPICT™





# Results – patients identified

| search results          | IP1   | IP2   | IP3   | IP4   | IP5   | IP6   | IP7   | IP8   | Total        |
|-------------------------|-------|-------|-------|-------|-------|-------|-------|-------|--------------|
| <b>Patients matched</b> | 55    | 29    | 63    | 69    | 78    | 41    | 106   | 71    | <b>512</b>   |
| <b>List size</b>        | 4459  | 3086  | 9971  | 10832 | 9367  | 6766  | 10847 | 7380  | <b>62706</b> |
| <b>Percentage ID'd</b>  | 1.23% | 0.94% | 0.63% | 0.64% | 0.83% | 0.61% | 0.98% | 0.96% | <b>0.82%</b> |

# Combination search results

| Combination search               | IP1 | IP2 | IP3 | IP4 | IP5 | IP6 | IP7 | IP8 | Total |
|----------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-------|
| Liver Disease & Spirinolactone   | 1   | 4   | 3   | 9   | 7   | 11  | 0   | 14  | 49    |
| Fractured Neck of Femur          | 4   | 1   | 1   | 8   | 5   | 3   | 19  | 1   | 42    |
| Heart Failure/COPD/CKD           | 8   | 12  | 16  | 54  | 23  | 15  | 45  | 18  | 191   |
| PVD + CKD (4 or 5)               | 2   | 0   | 0   | 4   | 4   | 0   | 3   | 0   | 13    |
| Difficulty swallowing + dementia | 2   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 2     |
| Housebound + dementia            | 14  | 5   | 26  | 24  | 28  | 14  | 58  | 18  | 187   |
| Housebound + multimorbidity      | 14  | 119 | 28  | 77  | 64  | 50  | 171 | 109 | 630   |

# Results Qualitative observations

## *GP categories of patients identified*

1. “Definitely not palliative”
2. “Not palliative yet”
3. “Would benefit from palliative care but I can’t intervene”
4. “Definitely palliative”

Categories 2 & 3 are candidates for *anticipatory care*.

# Conclusions

- Algorithm succeeds at identifying patients likely to have early palliative care (anticipatory) care needs.
- An easy to use, simple to understand, run-on-demand “plugin” matches primary care team needs.



Care and support  
through terminal illness

# Acknowledgements

Primary Palliative Care  
Research Group



Thanks to our funders, Marie Curie, The Edinburgh & Lothians Health Foundation and the OAK Foundation.

Thanks also to all participants in this project and also to the IT staff at NHS Lothian who supported us so ably.

Questions? Please contact Scott Murray ([Scott.Murray@ed.ac.uk](mailto:Scott.Murray@ed.ac.uk)) or Bruce Mason ([Bruce.Mason@ed.ac.uk](mailto:Bruce.Mason@ed.ac.uk))



THE UNIVERSITY of EDINBURGH

Edinburgh & Lothians  
**Health Foundation**



OAK  
FOUNDATION