

HANDOUT C: Spectrum of identifiability

PERSONAL CONFIDENTIAL INFORMATION

Health Record
Name: Jane Bloggs
DoB: 01-02-1947
Gender: Female
Ethnicity: White (Irish)
History: Atrial Fibrillation, Rheumatoid Arthritis
Medication: Warfarin
ID: Azathioprine
Postcode: # 2314
Test result: FEV1/FVC - 75%
NHS number: 623-742-8151

ID # 2314

DE-PERSONALISED INFORMATION

Population Dataset

ID	Age	Ethnicity	Condition	Medication	Location
2314	73	W2	H03	Azathioprine	N4
3789	42	A3	B05	Amoxicillin	SE 15
9837	25	B1	J00	N/A	W7
1875	31	M1	B02	Ventolin	E 10
6736	55	O 1	D06	Clarithromycin	NW3

ANONYMOUS INFORMATION

← More identifiable

Less identifiable →

Case study 7: Atrial Fibrillation

identification

Atrial Fibrillation (AF) is a condition that causes an irregular heart rate.

It is **one of the leading causes of strokes**, if not detected and treated.

Many people **don't know** they have AF.



Analysis of patient data (case-finding):

- By looking at de-identified information about a whole population, analysts can identify the characteristics of those most at risk of AF. This will allow GPs to identify the patients in their population who are most at risk.
- At-risk patients are then invited for a test at a GP surgery.
- Those who have the condition can then be put on medication to reduce the likelihood of a stroke.

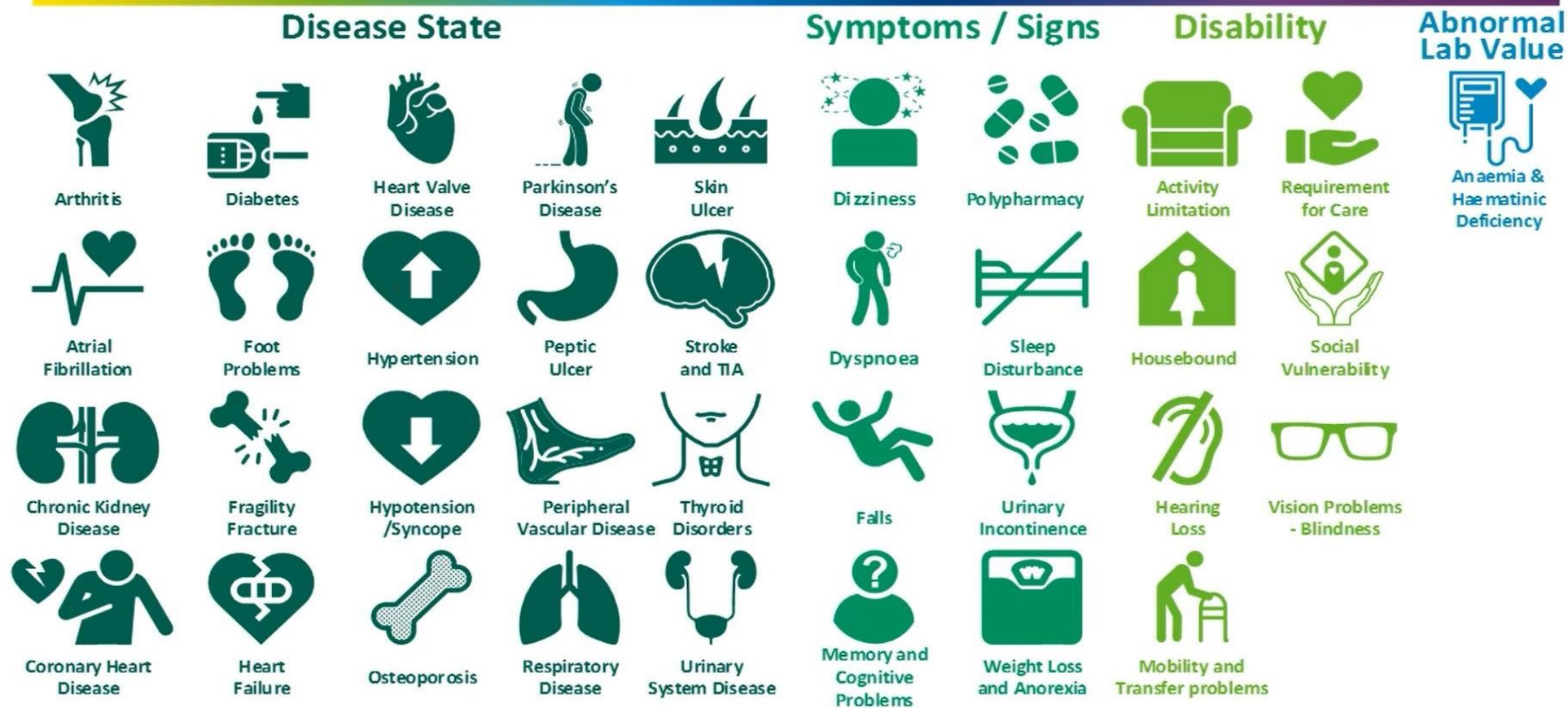
Case study 8: Coordinating care for the frail



- As we become more frail we also become more vulnerable to health crises.
- Health guidance recommends that people who are frail receive additional support through a care plan to help prevent a health crises.
- However identifying frailty is complex. It involves looking at multiple aspects of a medical record across 36 areas of need, for example: medication and mobility (see Handout C). The more needs a patient has, the more likely they are to experience frailty.
- By analysing the de-identified information of a whole population, we can identify those at highest risk of frailty. These people can then be offered more support.
- A frailty flag can be applied to a patient's health record to alert healthcare staff that they are vulnerable.
- Healthcare staff, such as doctors, nurses and paramedics, are able to see the frailty flag and take appropriate action to ensure the right level of support is offered.

Case study 8: Coordinating care for the frail

Electronic frailty index



Case study 9: Preventing onset of type 2 diabetes

- The number of people living in the UK with type 2 diabetes has more than doubled in the last 20 years to 4.7 million.
- Type 2 diabetes is one of the leading causes of stroke and heart disease
- Through changes to diet and lifestyle it has been demonstrated that we can prevent people from becoming type 2 diabetic.
- Obesity is responsible for 80-85% of someone's risk of developing type 2 diabetes.
- Using population level data (weight or BMI) we can identify people at risk of type 2 diabetes. They can be contacted by their GP practice and offered help and support to reduce the risk of onset.

