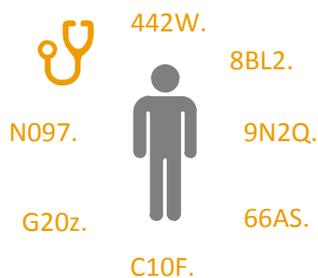# Read codes used by the electronic frailty index in SPIRE

The purpose of this document is to highlight a selection of read codes to support GP practices to code some of the deficits that contribute to the electronic frailty index (eFI) which may not be routinely recorded. This is not intended to be a definitive list, rather a guide to a selection of codes GP practices may wish to use.

The eFI looks at almost 3000 read codes in total under the 36 deficits that are taken into account to produce a person's frailty score (see Appendix A). The 36 deficits are grouped into disease state, symptoms or signs, disability and abnormal laboratory value. There are a number of read codes for each individual deficit (between 7 – 305 codes), using any one of these codes will flag that deficit to contribute to the eFI score.

What is the eFI?

The electronic frailty index (eFI) is a clinically validated tool that can identify people with frailty on an individual and population basis using routinely collected primary care data. The eFI, which uses a cumulative deficit model for frailty, was developed in England using GP data and was validated against a population of over 900,000 people aged 65 years and over. In Scotland the practical application of the tool was tested in a number of community settings and the eFI report can now be accessed by GP practices via SPIRE.

The Scottish Clinical Information Management in Practice (SCIMP) group reviewed the codes for each deficit to ensure they applied to the Scottish context. As a result the SPIRE report contains additional codes routinely used in Scotland under each deficit.

As individuals interact with GPs, their GP records accumulate a list of read codes and community prescriptions.

The eFI uses a subset of these read codes to interpret any number of up to 36 potential deficits (see diagram on the following page).

The number of deficits that an individual is considered to have is then divided by the total (36) to produce a score.

Document images from the noun project

Mild
Frailty

Moderate
Frailty

Severe
Frailty

The score determines whether a person is considered:
- fit (a score below 0.12),
- mildly frail (0.12 to 0.24),
- moderately frail (0.24 to 0.36), or
- severely frail (0.36 and above).

These categories of frailty align with the Rockwood Clinical Frailty scale. This can be calculated for an individual or for a whole GP practice population to help with population needs assessment and strategic planning.

Deficits included in the eFI

Disease State

Arthritis	Atrial Fibrillation	Chronic Kidney Disease	Coronary Heart Disease	Diabetes	Foot Problems	Fragility Fracture
Heart Failure	Heart Valve Disease	Hypertension	Hypotension /Syncope	Osteoporosis	Parkinson's Disease	Peptic Ulcer
Peripheral Vascular Disease	Respiratory Disease	Skin Ulcer	Stroke and TIA	Thyroid Disorders	Urinary System Disease	

Symptoms / Signs

Dizziness	Dyspnoea	Falls	Memory and Cognitive Problems	Polypharmacy	Sleep Disturbance	Urinary Incontinence
Weight Loss and Anorexia						

Disability

Activity Limitation	Hearing Loss	Housebound	Mobility and Transfer problems	Requirement for Care	Social Vulnerability	Vision Problems - Blindness

Abnormal laboratory value

Anaemia & Haematinic Deficiency

Read codes to consider

There are a number of read codes for each of the 36 deficits (between 7 – 305 codes per deficit, see Appendix A), using any one of these codes will flag that deficit to contribute to the eFI score. Coding is already very good within GP practices for the majority of the 36 deficits, therefore it would be overwhelming and unhelpful to share a list of all of the read codes that contribute to the eFI score.

To support the use of the eFI a GP National Clinical Lead for Healthcare Improvement Scotland has reviewed the 36 deficits and associated read codes, and has provided the following examples of codes you may wish to use for deficits that are not commonly coded. This is not intended to be a definitive list, rather a guide to some codes you may wish to use for the deficits that are not as well coded for within GP practices (such as the disability deficits).

Disease state		
Deficit	**Read code**	**Definition**
Foot Problems	16J7.	Swollen foot
	1M11.	Foot pain
Hypotension /Syncope	2244	O/E - collapse - syncope
	1B65.	Had a collapse
Skin Ulcer	39C0.	Pressure sore
	81H1.	Dressing of ulcer
Urinary System Disease	8D74.	Indwelling urethral catheter

Symptoms / signs		
Deficit	**Read code**	**Definition**
Dizziness	1B53.	Dizziness present
Dyspnoea	173..	Breathlessness
Falls	16D6.	Fall
Sleep Disturbance	1B1B.	Cannot sleep - insomnia
Urinary Incontinence	1A23.	Incontinence of urine
Weight Loss and Anorexia	1615.	Reduced appetite
	1627.	Unintentional weight loss

Disability

Deficit	Read code	Definition
Activity Limitation	13C5.	Confined to chair
Hearing Loss	1C12.	Hearing difficulty
	2DG..	Hearing aid worn
Housebound	13CA.	Housebound
Mobility and Transfer problems	1381.	Exercise physically impossible
	13C4.	Needs walking aid in home
	13CP.	Impaired mobility
	39B..	Walking aid use
Requirement for Care	13FX.	Lives in care home
	13WJ.	Help by relatives
	8GEA.	Care from relatives
	8GEB.	Care from friends
	918F.	Has a carer
Social Vulnerability	1335.	Widowed
	133R.	Vulnerable elderly person
	13EH.	Housing problems
	13F3.	Lives alone -no help available
	13HL.	Social isolation
	13MF.	Death of partner
	13ZA0	Does not speak English
Vision Problems - Blindness	1B75.	Loss of vision
	6688.	Registered partially sighted
	6689.	Registered blind

Appendix A

There are a number of read codes for each of the 36 deficits, with some of the more common deficits having several hundred codes, as shown in the table below. Using any one of these codes will flag that deficit to contribute to the eFI score in SPIRE.

Disease state	
Deficit	No of codes
Arthritis	255
Atrial Fibrillation	23
Chronic Kidney Disease	95
Coronary Heart Disease	127
Diabetes	232
Foot Problems	46
Fragility Fracture	106
Heart Failure	53
Heart Valve Disease	16
Hypertension	50
Hypotension / Syncope	26
Osteoporosis	55
Parkinson's Disease	27
Peptic Ulcer	143
Peripheral Vascular Disease	22
Respiratory Disease	305
Skin Ulcer	59
Stroke and TIA	111
Thyroid Disorders	99
Urinary System Disease	139

Symptoms / signs	
Deficit	No of codes
Dizziness	26
Dyspnoea	27
Falls	21
Memory & Cognitive Problems	91
*Polypharmacy	-
Sleep Disturbance	30
Urinary Incontinence	24
Weight Loss and Anorexia	13

Disability	
Deficit	No of codes
Activity Limitation	23
Hearing Loss	56
Housebound	7
Mobility & Transfer Problems	18
Requirement for Care	26
Social Vulnerability	39
Vision Problems - Blindness	232

Abnormal laboratory value	
Deficit	No of codes
Anaemia & Haematinic Deficiency	154

NB: *Polypharmacy looks at the number of prescriptions in the past 12 months in EMIS or Vision.