

# Supplementary information for ‘Effect of common infections on the incidence of post-stroke dementia: a cohort study using the Clinical Practice Research Datalink’

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Appendix 1: Read code lists for major infections (lower respiratory tract infection, urinary tract infection, skin and soft tissue infection)

LRTI codelist

Read code	Read term
HYU1100	[x]acute bronchiolitis due to other specified organisms
HYU1000	[x]acute bronchitis due to other specified organisms
HYU0600	[x]influenza+oth respiratory manifestatns,virus not identifd
HYU0700	[x]influenza+other manifestations, virus not identified
HYU0500	[x]influenza+other manifestations,influenza virus identified
HYU0A00	[x]other bacterial pneumonia
HYU0H00	[x]other pneumonia, organism unspecified
HYU0800	[x]other viral pneumonia
HYU0B00	[x]pneumonia due to other specified infectious organisms
HYU0C00	[x]pneumonia in bacterial diseases classified elsewhere
HYU0D00	[x]pneumonia in viral diseases classified elsewhere
HYU6.00	[x]suppurative & necrotic conditions of lower respir tract
AYU3A00	[x]whooping cough, unspecified
H530.00	abscess of lung
H53..00	abscess of lung and mediastinum
H53Z.00	abscess of lung and mediastinum nos
H530Z00	abscess of lung nos
H530300	abscess of lung with pneumonia
H060X00	acute bacterial bronchitis unspecified
H061.00	acute bronchiolitis
H061700	acute bronchiolitis due to human metapneumovirus
H061600	acute bronchiolitis due to other specified organisms
H061500	acute bronchiolitis due to respiratory syncytial virus
H061Z00	acute bronchiolitis nos
H061200	acute bronchiolitis with bronchospasm
H060.00	acute bronchitis
H06..00	acute bronchitis and bronchiolitis
H060B00	acute bronchitis due to coxsackievirus
H060F00	acute bronchitis due to echovirus
H060A00	acute bronchitis due to mycoplasma pneumoniae
H060C00	acute bronchitis due to parainfluenza virus
H060D00	acute bronchitis due to respiratory syncytial virus
H060E00	acute bronchitis due to rhinovirus
H060Z00	acute bronchitis nos
H06Z.00	acute bronchitis or bronchiolitis nos
H060400	acute croupous bronchitis

H061300	acute exudative bronchiolitis
H060800	acute haemophilus influenzae bronchitis
H06Z112	acute lower respiratory tract infection
H062.00	acute lower respiratory tract infection
H060100	acute membranous bronchitis
H060900	acute neisseria catarrhalis bronchitis
H060600	acute pneumococcal bronchitis
H060200	acute pseudomembranous bronchitis
H060300	acute purulent bronchitis
H060700	acute streptococcal bronchitis
H060500	acute tracheobronchitis
H060W00	acute viral bronchitis unspecified
H060.11	acute wheezy bronchitis
A054.00	amoebic lung abscess
AB63600	aspergillus bronchitis
H470.11	aspiration pneumonia
H470312	aspiration pneumonia due to vomit
H28..00	atypical pneumonia
H29..00	avian influenza
43JQ.00	avian influenza virus nucleic acid detection
H511.00	bacterial pleurisy with effusion
H511Z00	bacterial pleurisy with effusion nos
H22Z.00	bacterial pneumonia nos
H261.00	basal pneumonia due to unspecified organism
A330.00	bordetella pertussis
43WE.00	bordetella pertussis deoxyribonucleic acid detection
H30Z.00	bronchitis nos
H30..00	bronchitis unspecified
H25..00	bronchopneumonia due to unspecified organism
H07..00	chest cold
H06Z011	chest infection
H270.11	chest infection - influenza with pneumonia
H22..11	chest infection - other bacterial pneumonia
H26..11	chest infection - pneumonia due to unspecified organism
H21..11	chest infection - pneumococcal pneumonia
H23..11	chest infection - pneumonia organism os
H30..11	chest infection - unspecified bronchitis
H25..11	chest infection - unspecified bronchopneumonia
H20..11	chest infection - viral pneumonia
H06Z000	chest infection nos
H24..11	chest infection with infectious disease ec
H233.00	chlamydial pneumonia

H3Y0.00	chronic obstruct pulmonary dis with acute lower resp infectn
H2B..00	community acquired pneumonia
Q310.00	congenital pneumonia
Q310600	congenital pneumonia due to chlamydia
Q310300	congenital pneumonia due to escherichia coli
Q310100	congenital pneumonia due to group a haemolytic streptococcus
Q310200	congenital pneumonia due to group b haemolytic streptococcus
Q310400	congenital pneumonia due to pseudomonas
Q310000	congenital pneumonia due to staphylococcus
Q310500	congenital pneumonia due to viral agent
Q310Z00	congenital pneumonia nos
H564.11	cryptogenic organising pneumonia
A785000	cytomegaloviral pneumonitis
H22Y011	e.coli pneumonia
H312100	emphysematous bronchitis
H50..00	empyema
H50Z.00	empyema nos
H500000	empyema with bronchocutaneous fistula
H500100	empyema with bronchopleural fistula
H500.00	empyema with fistula
H500Z00	empyema with fistula nos
H501.00	empyema with no fistula
H500400	empyema with pleural fistula nos
H27Z.11	flu like illness
H530200	gangrenous pneumonia
A54X400	herpes simplex pneumonia
AB40500	histoplasma capsulatum with pneumonia
AB41500	histoplasma duboisii with pneumonia
A789300	hiv disease resulting in pneumocystis carinii pneumonia
A789311	hiv disease resulting in pneumocystis jirovecii pneumonia
H2C..00	hospital acquired pneumonia
4JUF.00	human parainfluenza virus detected
H540100	hypostatic bronchopneumonia
H540000	hypostatic pneumonia
H27..00	influenza
H2A..11	influenza a (h1n1) swine flu
43W6.00	influenza a nucleic acid detection
4J3L.00	influenza a virus h1n1 subtype detected
9OXC000	influenza a virus subtype h1n1 vac inv sms text message sent
4JU4.00	influenza a virus, other or untyped strain detected
43WD.00	influenza b nucleic acid detection
4JU5.00	influenza b virus detected

H2A..00	influenza due to influenza a virus subtype h1n1
4JU0.00	influenza h1 virus detected
4JU1.00	influenza h2 virus detected
4JU2.00	influenza h3 virus detected
4JU3.00	influenza h5 virus detected
H27Z.12	influenza like illness
H27Z.00	influenza nos
H270000	influenza with bronchopneumonia
H27Y000	influenza with encephalopathy
H27Y100	influenza with gastrointestinal tract involvement
H271000	influenza with laryngitis
H27Y.00	influenza with other manifestations
H27YZ00	influenza with other manifestations nos
H271.00	influenza with other respiratory manifestation
H271100	influenza with pharyngitis
H270.00	influenza with pneumonia
H270Z00	influenza with pneumonia nos
H270100	influenza with pneumonia, influenza virus identified
H271Z00	influenza with respiratory manifestations nos
16L..00	influenza-like symptoms
H301.00	laryngotracheobronchitis
H21..00	lobar (pneumococcal) pneumonia
H260.00	lobar pneumonia due to unspecified organism
H06Z100	lower resp tract infection
H260000	lung consolidation
H501300	lung empyema nos
H530100	multiple lung abscess
4JUK.00	mycoplasma pneumoniae detected
65VA.00	notification of whooping cough
A730.00	ornithosis with pneumonia
SP13100	other aspiration pneumonia as a complication of care
H22..00	other bacterial pneumonia
Q310Y00	other specified congenital pneumonia
H2Y..00	other specified pneumonia or influenza
A33YZ00	other whooping cough nos
43JX.00	parainfluenza type 1 nucleic acid detection
43JY.00	parainfluenza type 2 nucleic acid detection
43JZ.00	parainfluenza type 3 nucleic acid detection
43W9.00	parainfluenza type 4 nucleic acid detection
H501200	pleural empyema
A3BY400	pleuropneumonia-like organism (pplo) infection
H511000	pneumococcal pleurisy with effusion

AB24.11	pneumonia - candidal
H22Y200	pneumonia - legionella
H2...00	pneumonia and influenza
H200.00	pneumonia due to adenovirus
H22YZ00	pneumonia due to bacteria nos
H230.00	pneumonia due to eaton's agent
H22Y000	pneumonia due to escherichia coli
H222.00	pneumonia due to haemophilus influenzae
H222.11	pneumonia due to haemophilus influenzae
H203.00	pneumonia due to human metapneumovirus
H220.00	pneumonia due to klebsiella pneumoniae
H231.00	pneumonia due to mycoplasma pneumoniae
H22YX00	pneumonia due to other aerobic gram-negative bacteria
H22Y.00	pneumonia due to other specified bacteria
H23..00	pneumonia due to other specified organisms
H202.00	pneumonia due to parainfluenza virus
H232.00	pneumonia due to pleuropneumonia like organisms
H22Y100	pneumonia due to proteus
H221.00	pneumonia due to pseudomonas
H201.00	pneumonia due to respiratory syncytial virus
H23Z.00	pneumonia due to specified organism nos
H224.00	pneumonia due to staphylococcus
H223.00	pneumonia due to streptococcus
H223000	pneumonia due to streptococcus, group b
H26..00	pneumonia due to unspecified organism
H2Z..00	pneumonia or influenza nos
H24Y000	pneumonia with actinomycosis
H246.00	pneumonia with aspergillosis
H247000	pneumonia with candidiasis
H247100	pneumonia with coccidioidomycosis
H241.00	pneumonia with cytomegalic inclusion disease
H24..00	pneumonia with infectious diseases ec
H24Z.00	pneumonia with infectious diseases ec nos
H240.00	pneumonia with measles
H24Y100	pneumonia with nocardiasis
H242.00	pneumonia with ornithosis
H24Y.00	pneumonia with other infectious diseases ec
H24YZ00	pneumonia with other infectious diseases ec nos
H247.00	pneumonia with other systemic mycoses
H243.11	pneumonia with pertussis
H24Y200	pneumonia with pneumocystis carinii
H24Y300	pneumonia with q-fever

H24Y400	pneumonia with salmonellosis
H247Z00	pneumonia with systemic mycosis nos
H24Y500	pneumonia with toxoplasmosis
H244.00	pneumonia with tularaemia
H24Y600	pneumonia with typhoid fever
H24Y700	pneumonia with varicella
H243.00	pneumonia with whooping cough
A205.00	pneumonic plague, unspecified
1W0..00	possible influenza a virus h1n1 subtype
SP13200	post operative chest infection
A551.00	postmeasles pneumonia
H262.00	postoperative pneumonia
A203.00	primary pneumonic plague
H501400	purulent pleurisy
H501500	pyopneumothorax
H06Z200	recurrent chest infection
H30..12	recurrent wheezy bronchitis
H06Z111	respiratory tract infection
H571.00	rheumatic pneumonia
A022200	salmonella pneumonia
A204.00	secondary pneumonic plague
H530000	single lung abscess
H511100	staphylococcal pleurisy with effusion
H511200	streptococcal pleurisy with effusion
H060V00	subacute bronchitis unspecified
1J72.00	suspected influenza a virus subtype h1n1 infection
1J72.11	suspected swine influenza
9N31000	telephne consultatn suspected influenza a virus subtype h1n1
AD04.00	toxoplasma pneumonitis
H300.00	tracheobronchitis nos
A521.00	varicella pneumonitis
H20..00	viral pneumonia
H20Y.00	viral pneumonia nec
H20Z.00	viral pneumonia nos
H302.00	wheezy bronchitis
A33..00	whooping cough
A33Y.00	whooping cough - other specified organism
A33Z.00	whooping cough nos

#### UTI codelist

Read code	Read term
KYU5100	[x]other cystitis

K15Y200	abscess of bladder
K150.00	acute cystitis
A981100	acute gonococcal cystitis
K101200	acute pyelitis
K101.00	acute pyelonephritis
K101Z00	acute pyelonephritis nos
K101000	acute pyelonephritis without medullary necrosis
K101300	acute pyonephrosis
K106.00	candida pyelonephritis
SP07Q00	catheter-associated urinary tract infection
SP07Q11	cauti - catheter-associated urinary tract infection
K15..00	cystitis
K154000	cystitis in actinomycosis
K154100	cystitis in amoebiasis
K154200	cystitis in bilharziasis
K154.00	cystitis in diseases ec
K154Z00	cystitis in diseases ec nos
K154500	cystitis in gonorrhoea
K154600	cystitis in moniliasis
K154700	cystitis in trichomoniasis
K15Z.00	cystitis nos
L166.11	cystitis of pregnancy
A32Y300	diphtheritic cystitis
K101400	emphysematous pyelonephritis
K15YZ00	other cystitis nos
K15Y.00	other specified cystitis
K102100	perinephric abscess
K190200	post operative urinary tract infection
K213.00	Prostatocystitis
K10Y400	pyelitis in diseases ec
K10Y100	pyelitis unspecified
K10Y.00	pyelonephritis and pyonephrosis unspecified
K10Y300	pyelonephritis in diseases ec
K10Y000	pyelonephritis unspecified
K10Y200	pyonephrosis unspecified
K155.00	recurrent cystitis
K190.11	recurrent urinary tract infection
K190300	recurrent urinary tract infection
1AG..00	recurrent urinary tract infections
K102000	renal abscess
K102.00	renal and perinephric abscess
K102Z00	renal and perinephric abscess nos



K102200	renal carbuncle
K152000	subacute cystitis
K151200	submucous cystitis
1J4..00	suspected uti
K10YZ00	unspecified pyelonephritis nos
K190500	urinary tract infection
L166800	urinary tract infection complicating pregnancy
L09Y400	urinary tract infection following abortive pregnancy
L166600	urinary tract infection following delivery
K190.00	urinary tract infection, site not specified
K190Z00	urinary tract infection, site not specified nos
46U8.00	urine culture - bacteria os
46U3.00	urine culture - e. coli
46U3.11	urine culture - escherich.coli
46U2.00	urine culture - mixed growth
46U4.00	urine culture – proteus
46U7.00	urine culture - pseudomonas
46U6.00	urine culture - staph. albus
46U5.00	urine culture - str. Faecalis
K190600	Urosepsis
L166Z11	uti - urinary tract infection in pregnancy

#### SSTI codelist

Read code	Read term
M094000	[x]abscess of axilla
M093.00	[x]abscess of buttock
M092000	[x]abscess of buttock
M090.00	[x]abscess of face
M094.00	[x]abscess of limb
M091.00	[x]abscess of neck
M09Y.00	[x]abscess of other site
M092.00	[x]abscess of trunk
M084.00	[x]cellulitis of breast
M080.00	[x]cellulitis of finger and toe
M081.00	[x]cellulitis of other parts of limb
M08Y.00	[x]cellulitis of other sites
M080.13	[x]cellulitis of thumb
M092200	[x]perineal abscess
M03Z100	abscess nos
J54..00	abscess of anal and rectal regions
N22Y300	abscess of bursa
N22YF00	abscess of bursa-elbow

N22YL00	abscess of bursa-foot
N22YH00	abscess of bursa-hip
N22YJ00	abscess of bursa-knee
N22YE00	abscess of bursa-shoulder
N22YG00	abscess of bursa-wrist
M034011	abscess of dorsum of hand
F506.00	abscess of external ear
F4D1200	abscess of eyelid
K424011	abscess of labia
J085000	abscess of lip
L450.11	abscess of nipple - obstetric
M034012	abscess of palm of hand
M03Y011	abscess of scalp
K284000	abscess of scrotum
M03..11	abscess of skin area excluding digits of hand or foot
N22Y200	abscess of tendon
N22Y600	abscess of tendon-arm
N22YB00	abscess of tendon-foot
N22Y700	abscess of tendon-forearm
N22Y800	abscess of tendon-hand
N22YA00	abscess of tendon-leg
N22Y900	abscess of tendon-thigh
C050200	abscess of thyroid
J090000	abscess of tongue
K424000	abscess of vulva
N22Y.11	abscess, contracture or calcification of bursa or tendon
F501111	abscess, external ear
K310100	acute adolescent mastitis
K310400	acute nonpuerperal breast abscess
K310000	acute nonpuerperal mastitis
J54Z.00	ano-rectal abscess nos
K318.00	breast abscess
M00..00	Carbuncle
M00Z.00	carbuncle nos
M002300	carbuncle of abdominal wall
M006400	carbuncle of ankle
M005000	carbuncle of anus
M003100	carbuncle of axilla
M002200	carbuncle of back
M002100	carbuncle of breast
M005.00	carbuncle of buttock
M005Z00	carbuncle of buttock nos

M002000	carbuncle of chest wall
M000000	carbuncle of ear
M003300	carbuncle of elbow
M000.00	carbuncle of face
M000100	carbuncle of face (excluding eye)
M000Z00	carbuncle of face nos
M004200	carbuncle of finger
M002500	carbuncle of flank
M007.00	carbuncle of foot
M007Z00	carbuncle of foot nos
M003400	carbuncle of forearm
M005100	carbuncle of gluteal region
M002600	carbuncle of groin
M004.00	carbuncle of hand
M004Z00	carbuncle of hand nos
M00Y000	carbuncle of head (excluding face)
M007100	carbuncle of heel
M006000	carbuncle of hip
M006200	carbuncle of knee
K42Y100	carbuncle of labium
M006.00	carbuncle of leg (excluding foot)
M006Z00	carbuncle of leg (excluding foot) nos
M006300	carbuncle of lower leg
M000200	carbuncle of nasal septum
M001.00	carbuncle of neck
M00Y.00	carbuncle of other specified site
M00YZ00	carbuncle of other specified site nos
M002700	carbuncle of perineum
K284200	carbuncle of scrotum
M003000	carbuncle of shoulder
M000300	carbuncle of temple region
M006100	carbuncle of thigh
M004100	carbuncle of thumb
M007200	carbuncle of toe
M002.00	carbuncle of trunk
M002Z00	carbuncle of trunk nos
M002400	carbuncle of umbilicus
M003200	carbuncle of upper arm
M003.00	carbuncle of upper arm and forearm
M003Z00	carbuncle of upper arm and forearm nos
K42Y000	carbuncle of vagina
K424100	carbuncle of vulva

M004000	carbuncle of wrist
J54..11	cellulitis - anus or rectum
M03Z.00	cellulitis and abscess nos
M03ZZ00	cellulitis and abscess nos
M032300	cellulitis and abscess of abdominal wall
M036400	cellulitis and abscess of ankle
M033.00	cellulitis and abscess of arm
M033Z00	cellulitis and abscess of arm nos
M033100	cellulitis and abscess of axilla
M032200	cellulitis and abscess of back
M032100	cellulitis and abscess of breast
M035.00	cellulitis and abscess of buttock
M030011	cellulitis and abscess of cheek
M030000	cellulitis and abscess of cheek (external)
M032000	cellulitis and abscess of chest wall
M030200	cellulitis and abscess of chin
M02Z.00	cellulitis and abscess of digit nos
M033300	cellulitis and abscess of elbow
M030.00	cellulitis and abscess of face
M030Z00	cellulitis and abscess of face nos
M020.00	cellulitis and abscess of finger
M02..00	cellulitis and abscess of finger and toe
M020Z00	cellulitis and abscess of finger nos
M020000	cellulitis and abscess of finger unspecified
M032500	cellulitis and abscess of flank
M037.11	cellulitis and abscess of foot
M037.00	cellulitis and abscess of foot excluding toe
M037Z00	cellulitis and abscess of foot nos
M037000	cellulitis and abscess of foot unspecified
M033400	cellulitis and abscess of forearm
M030400	cellulitis and abscess of forehead
M032600	cellulitis and abscess of groin
M034.11	cellulitis and abscess of hand
M034.00	cellulitis and abscess of hand excluding digits
M034Z00	cellulitis and abscess of hand nos
M034000	cellulitis and abscess of hand unspecified
M03Y000	cellulitis and abscess of head unspecified
M037100	cellulitis and abscess of heel
M036000	cellulitis and abscess of hip
M036200	cellulitis and abscess of knee
M036.11	cellulitis and abscess of leg
M036.00	cellulitis and abscess of leg excluding foot

M036Z00	cellulitis and abscess of leg nos
M036300	cellulitis and abscess of lower leg
M031.00	cellulitis and abscess of neck
M030111	cellulitis and abscess of nose
M030100	cellulitis and abscess of nose (external)
M032700	cellulitis and abscess of perineum
M033000	cellulitis and abscess of shoulder
M030500	cellulitis and abscess of temple region
M036100	cellulitis and abscess of thigh
M021.00	cellulitis and abscess of toe
M021Z00	cellulitis and abscess of toe nos
M021000	cellulitis and abscess of toe unspecified
M032.00	cellulitis and abscess of trunk
M032Z00	cellulitis and abscess of trunk nos
M032400	cellulitis and abscess of umbilicus
M033200	cellulitis and abscess of upper arm
M034100	cellulitis and abscess of wrist
M037200	cellulitis in diabetic foot
M03Z000	cellulitis nos
M086.00	cellulitis of ankle
M088.00	cellulitis of arm
M08A.00	cellulitis of axilla
M034013	cellulitis of dorsum of hand
M038.00	cellulitis of external ear
F4D1400	cellulitis of eyelid
F4D0.11	cellulitis of eyelids
M082.00	cellulitis of face
M030600	cellulitis of face
J083000	cellulitis of floor of mouth
M08B.00	cellulitis of foot
M085.00	cellulitis of leg
J085100	cellulitis of lip
M089.00	cellulitis of neck
M034014	cellulitis of palm of hand
K272300	cellulitis of penis
K284300	cellulitis of scrotum
M03..13	cellulitis of skin area excluding digits of hand or foot
M08C.00	cellulitis of toe
M083.00	cellulitis of trunk
M032800	cellulitis of trunk
F501112	cellulitis, external ear
M09..00	cutaneous abscess

M08..00	cutaneous cellulitis
7303100	drainage of abscess of external ear
7G25011	drainage of abscess of head or neck
7G25112	drainage of boil of skin nec
7G25012	drainage of boil of skin of head or neck
7G25100	drainage of lesion of skin nec
7G25000	drainage of lesion of skin of head or neck
2FD0.00	eron class i skin and soft tissue infection
A35..00	erysipelas
M020100	finger pulp abscess
M244.00	Folliculitis
M244100	folliculitis (sycosis) barbae
M244200	folliculitis depilans
M244Z00	folliculitis nos
A98YY14	gonococcal cellulitis
M05..00	Impetigo
F501711	impetigo - otitis externa
M053.00	impetigo circinata
M051.00	impetigo contagiosa bullosa
M052.00	impetigo contagiosa gyrata
M050.00	impetigo contagiosa unspecified
M056.00	impetigo follicularis
M054.00	impetigo neonatorum
M05Z.00	impetigo nos
M055.00	impetigo simplex
7G25700	incision and drainage of abscess
F501700	infective otitis externa due to impetigo
K310.13	mastitis
N230A00	muscle abscess
N230E00	muscle abscess-arm
N230C00	muscle abscess-back
N230L00	muscle abscess-foot
N230F00	muscle abscess-forearm
N230G00	muscle abscess-hand
N230K00	muscle abscess-leg
N230B00	muscle abscess-neck
N230H00	muscle abscess-pelvis
N230D00	muscle abscess-shoulder
N230J00	muscle abscess-thigh
A3A6.00	necrotising fasciitis
L451.00	obstetric breast abscess
L451Z00	obstetric breast abscess nos

L451000	obstetric breast abscess unspecified
L451400	obstetric breast abscess with postnatal complication
L452.00	obstetric nonpurulent mastitis
L452200	obstetric nonpurulent mastitis - deliv with p/n complication
L452Z00	obstetric nonpurulent mastitis nos
L452000	obstetric nonpurulent mastitis unspecified
L452300	obstetric nonpurulent mastitis with antenatal complication
L452400	obstetric nonpurulent mastitis with postnatal complication
F4G0100	orbital cellulitis
K424.00	other abscess of vulva
K424Z00	other abscess of vulva nos
M03..00	other cellulitis and abscess
M03Y.00	other specified cellulitis and abscess
K272200	penile carbuncle
J540.11	perianal cellulitis
M244400	perifolliculitis
M244800	perifolliculitis capitis abscedens
M244700	perifolliculitis of scalp
M24Y000	pseudofolliculitis barbae
K310111	pubertal mastitis
L451.11	purulent mastitis - obstetric
M244300	pustular folliculitis
M095.00	skin abscess
K310200	subacute nonpuerperal mastitis
A3AY000	tropical pyomyositis

#### Appendix 2: Read code list for dementia

Read code	Read term	Incident or prevalent marker
4L49.00	prion protein markers for creutzfeldt-jakob disease	Incident
A411.00	jakob-creutzfeldt disease	Incident
A411000	sporadic creutzfeldt-jakob disease	Incident
A413.00	progressive multifocal leukoencephalopathy	Incident
A413.11	progressive multifocal leukoencephalopathy	Incident
E012.00	other alcoholic dementia	Incident
E012.11	alcoholic dementia nos	Incident
E012000	chronic alcoholic brain syndrome	Incident
E02Y100	drug-induced dementia	Incident
E041.00	dementia in conditions ec	Incident
EU02.00	[x]dementia in other diseases classified elsewhere	Incident
EU02000	[x]dementia in pick's disease	Incident
EU02100	[x]dementia in creutzfeldt-jakob disease	Incident
EU02200	[x]dementia in huntington's disease	Incident

EU02300	[x]dementia in parkinson's disease	Incident
EU02400	[x]dementia in human immunodef virus [hiv] disease	Incident
EU02500	[x]lewy body dementia	Incident
EU02Y00	[x]dementia in other specified diseases classified elsewhere	Incident
EU03.11	[x]korsakov's psychosis, nonalcoholic	Incident
EU10711	[x]alcoholic dementia nos	Incident
F111.00	pick's disease	Incident
F116.00	lewy body disease	Incident
F11X.00	cerebral degeneration in other disease except	Incident
F11X000	cerebral degeneration due to alcoholism	Incident
F11X400	cerebral degeneration due to neoplastic disease	Incident
F11X500	cerebral degeneration due to myxoedema	Incident
F11X600	cerebral degeneration due to vitamin b12 deficiency	Incident
F11X700	cerebral degeneration due to jakob - creutzfeldt disease	Incident
F11X800	cerebral degeneration due to multifocal leucoencephalopathy	Incident
F11X900	cerebral degeneration in parkinson's disease	Incident
F11XZ00	cerebral degeneration other disease nos	Incident
F11Y000	reye's syndrome	Incident
F134.00	huntington's chorea	Incident
1JA2.00	suspected dementia	Incident
E00..11	senile dementia	Incident
E00..12	senile/presenile dementia	Incident
E000.00	uncomplicated senile dementia	Incident
E001.00	presenile dementia	Incident
E001000	uncomplicated presenile dementia	Incident
E001100	presenile dementia with delirium	Incident
E001200	presenile dementia with paranoia	Incident
E001300	presenile dementia with depression	Incident
E001Z00	presenile dementia nos	Incident
E002.00	senile dementia with depressive or paranoid features	Incident
E002000	senile dementia with paranoia	Incident
E002100	senile dementia with depression	Incident
E002Z00	senile dementia with depressive or paranoid features nos	Incident
E003.00	senile dementia with delirium	Incident
E004.00	arteriosclerotic dementia	Incident
E004.11	multi infarct dementia	Incident
E004000	uncomplicated arteriosclerotic dementia	Incident
E004100	arteriosclerotic dementia with delirium	Incident
E004200	arteriosclerotic dementia with paranoia	Incident
E004300	arteriosclerotic dementia with depression	Incident
E004Z00	arteriosclerotic dementia nos	Incident
E00Y.11	presbyophrenic psychosis	Incident
E00Z.00	senile or presenile psychoses nos	Incident
EU00.00	[x]dementia in alzheimer's disease	Incident
EU00000	[x]dementia in alzheimer's disease with early onset	Incident



EU00011	[x]presenile dementia,alzheimer's type	Incident
EU00012	[x]primary degen dementia, alzheimer's type, presenile onset	Incident
EU00013	[x]alzheimer's disease type 2	Incident
EU00100	[x]dementia in alzheimer's disease with late onset	Incident
EU00111	[x]alzheimer's disease type 1	Incident
EU00112	[x]senile dementia,alzheimer's type	Incident
EU00113	[x]primary degen dementia of alzheimer's type, senile onset	Incident
EU00200	[x]dementia in alzheimer's dis, atypical or mixed type	Incident
EU00Z00	[x]dementia in alzheimer's disease, unspecified	Incident
EU00Z11	[x]alzheimer's dementia unspec	Incident
EU01.00	[x]vascular dementia	Incident
EU01.11	[x]arteriosclerotic dementia	Incident
EU01000	[x]vascular dementia of acute onset	Incident
EU01100	[x]multi-infarct dementia	Incident
EU01111	[x]predominantly cortical dementia	Incident
EU01200	[x]subcortical vascular dementia	Incident
EU01300	[x]mixed cortical and subcortical vascular dementia	Incident
EU01Y00	[x]other vascular dementia	Incident
EU01Z00	[x]vascular dementia, unspecified	Incident
EU02Z00	[x] unspecified dementia	Incident
EU02Z11	[x] presenile dementia nos	Incident
EU02Z12	[x] presenile psychosis nos	Incident
EU02Z13	[x] primary degenerative dementia nos	Incident
EU02Z14	[x] senile dementia nos	Incident
EU02Z15	[x] senile psychosis nos	Incident
EU02Z16	[x] senile dementia, depressed or paranoid type	Incident
EU04100	[x]delirium superimposed on dementia	Incident
F110.00	alzheimer's disease	Incident
F110000	alzheimer's disease with early onset	Incident
F110100	alzheimer's disease with late onset	Incident
F112.00	senile degeneration of brain	Incident
F11X200	cerebral degeneration due to cerebrovascular disease	Incident
F11Y.00	other cerebral degeneration	Incident
F11YZ00	other cerebral degeneration nos	Incident
F11Z.00	cerebral degeneration nos	Incident
F11Z.11	cerebral atrophy	Incident
F21Y211	binswanger's encephalopathy	Incident
FYU3000	[x]other alzheimer's disease	Incident
ZS7C500	language disorder of dementia	Incident
1461.00	h/o: dementia	Prevalent
66H..00	dementia monitoring	Prevalent
6AB..00	dementia annual review	Prevalent
8BM0200	dementia medication review	Prevalent
8BPA.00	antipsychotic drug therapy for dementia	Prevalent
8CET.00	dementia leaflet given	Prevalent
8CME000	dementia advance care plan	Prevalent
8CMG200	review of dementia advance care plan	Prevalent
8CMZ.00	dementia care plan	Prevalent

8CMZ000	dementia care plan agreed	Prevalent
8CMZ100	dementia care plan reviewed	Prevalent
8CMZ200	dementia care plan declined	Prevalent
8CMZ300	dementia care plan review declined	Prevalent
8CSA.00	dementia advance care plan agreed	Prevalent
8IAE000	dementia advance care plan declined	Prevalent
8IAE200	dementia advance care plan review declined	Prevalent
9OU..00	dementia monitoring administration	Prevalent
9OU1.00	dementia monitoring first letter	Prevalent
9OU2.00	dementia monitoring second letter	Prevalent
9OU3.00	dementia monitoring third letter	Prevalent
9OU4.00	dementia monitoring verbal invite	Prevalent
9OU5.00	dementia monitoring telephone invite	Prevalent

Appendix 3: Multivariable Cox regression models for early and late dementia by all characteristics included in analysis

Characteristic	Early Dementia	P-value*	Late Dementia	P-value*
Infection**	1.44 (1.21 – 1.71)	<0.001	1.05 (0.96 – 1.16)	0.296
Age				
40 – 59 years	1		1	
60 – 74 years	5.86 (3.15 – 10.88)	<0.001	5.47 (3.95– 7.59)	<0.001
75 – 84 years	17.85 (9.71– 32.81)		15.59 (11.28– 21.54)	
85 & over	29.44 (1.93– 54.40)		27.60 (19.95– 38.37)	
Sex				
Female	1.14 (0.98 – 1.32)	0.089	0.98 (0.89 – 1.08)	0.674
Ethnicity				
White	1		1	
South Asian	1.29 (0.80 – 2.09)	0.654	1.03 (0.72 – 1.48)	0.597
Black	1.33 (0.68 – 2.58)		1.29 (0.84 – 2.00)	
Other / Mixed	0.99 (0.47 – 2.09)		0.82 (0.48 – 1.39)	
Local area deprivation score (quintiles)				
1 (= least deprived)	1		1	
2	0.82 (0.65 – 1.04)	0.091	0.99 (0.85 – 1.15)	0.092
3	1.03 (0.83 – 1.29)		1.01 (0.87 – 1.17)	
4	1.06 (0.84 – 1.32)		1.13 (0.98 – 1.31)	
5 (= most deprived)	1.10 (0.88 – 1.37)		1.14 (0.99 – 1.31)	
Country				
England	1		1	
Wales	0.51 (0.27 – 0.99)	0.100	0.57 (0.39 – 0.82)	<0.001
Scotland	0.85 (0.64 – 1.14)		0.64 (0.52 – 0.78)	
Northern Ireland	1.45 (0.36 – 5.86)		0.49 (0.07 – 3.46)	
Consultation frequency post stroke				
<10 per year	1		1	
10 – 19 per year	0.50 (0.38 – 0.67)	<0.001	0.67 (0.56 – 0.80)	<0.001
20 – 29 per year	0.57 (0.43 – 0.76)		0.90 (0.76 – 1.07)	
30 – 49 per year	0.91 (0.69 – 1.18)		1.18 (0.99 – 1.41)	
>50 per year	1.73 (1.31 – 2.28)		1.50 (1.22 – 1.84)	
Baseline smoking status				
Never	1		1	
Past	0.97 (0.83 – 1.13)	0.612	0.99 (0.90 – 1.09)	0.783
Current	1.08 (0.86 – 1.36)		1.04 (0.90 – 1.20)	
Alcohol Use (n=54,316)				
Current	0.90 (0.78 – 1.05)	0.175	0.90 (0.81 – 0.99)	0.031
Baseline BMI category				
Underweight	1.43 (1.07 – 1.92)	<0.001	1.52 (1.22 – 1.89)	<0.001
Normal Weight	1		1	
Overweight	0.81 (0.69 – 0.95)		0.86 (0.78 – 0.95)	
Obese	0.67 (0.55 – 0.82)		0.72 (0.63 – 0.82)	
History of Diabetes	1.24 (1.03 – 1.49)	0.022	1.21 (1.07 – 1.38)	0.004
History of Atrial Fibrillation	1.05 (0.88 – 1.26)	0.562	1.01 (0.89 – 1.14)	0.886
History of Myocardial Infarction	1.13 (0.91 – 1.42)	0.267	1.07 (0.91 – 1.25)	0.418
Depression				
No Depression	1		1	
History of Depression	1.49 (1.17 – 1.89)	<0.001	1.47 (1.24 – 1.75)	<0.001
New depression post stroke	0.48 (0.34 – 0.67)		1.21 (1.05 – 1.39)	
Use of medication in 2 years pre-stroke				
Anti-hypertensive	0.77 (0.65 – 0.91)	0.003	0.87 (0.78 – 0.97)	0.012
Statin	1.14 (0.97 – 1.33)	0.116	1.03 (0.93 – 1.14)	0.608
Immunosuppressant	0.80 (0.64 – 0.98)	0.029	0.91 (0.79 – 1.05)	0.189
Anti-platelet within 90 days of stroke	0.93 (0.80 – 1.07)	0.317	0.87 (0.79 – 0.96)	0.005

\* Calculated by LRT

\*\* Recorded in GP records and defined as lower respiratory tract infection, urinary tract infection with antibiotics, or skin/soft tissue infection with antibiotics.

Appendix 4: Multivariable Cox regression model for sensitivity analysis excluding infections in first 3 months

Infection		HR (95% CI)	
		All infections included	Excluding infection in first 3 months
<b>Early Dementia</b>			
All	GP recorded infections only		
	No Infection	1	1
	Any Infection	1.44 (1.21 – 1.71)	1.48 (1.18 – 1.85)
Restricted to patients with linked HES	GP recorded infections only		
	No Infection	1	1
	Any Infection	1.53 (1.28 – 1.84)	1.56 (1.23 – 1.98)
	GP recorded & hospital recorded infections		
	No Infection	1	1
	Any Infection	1.84 (1.58– 2.14)	1.62 (1.26 – 2.08)
	GP recorded & hospital recorded infections where infection was primary diagnosis		
	No Infection	1	1
	Any Infection	1.79 (1.52 – 2.11)	1.81 (1.45 – 2.25)
<b>Late Dementia</b>			
All	GP recorded infections only		
	No Infection	1	1
	Any Infection	1.05 (0.96– 1.16)	1.07 (0.96 – 1.18)
Restricted to patients with linked HES	GP recorded infections only		
	No Infection	1	1
	Any Infection	1.10 (0.99 – 1.22)	1.12 (1.00 – 1.24)
	GP recorded & hospital recorded infections		
	No Infection	1	1
	Any Infection	1.50 (1.35 – 1.66)	1.51 (1.35 – 1.69)
	GP recorded & hospital recorded infections where infection was primary diagnosis		
	No Infection	1	1
	Any Infection	1.36 (1.23 – 1.50)	1.39 (1.25 – 1.54)

\*Adjusted for age, sex, country, consultation frequency, ethnicity, deprivation, alcohol, smoking, BMI, pre-morbid conditions, pre-stroke use of medication, anti-coagulant prescribing post stroke and depression (pre and post stroke)

Appendix 5: Multivariable Cox regression model for effect of first infection type on dementia

Infection	Total dementia cases	Total person time	Rate per 1000 person years (95% CI)	HR (95% CI)			P-Value
				Crude	Sex and Age adjusted	Adjusted*	
<b>Early Dementia</b>							
No Infection	1,145	35284	32.45 (30.63 – 34.39)	1	1	1	0.0001
LRTI	125	2461	50.80 (42.63 – 60.54)	1.65 (1.37 – 1.99)	1.39 (1.15 – 1.67)	1.44 (1.14 – 1.81)	
UTI	114	1725	66.08 (55.00 – 79.40)	2.16 (1.78 – 2.62)	1.60 (1.32 – 1.95)	1.63 (1.28 – 2.07)	
SSTI	22	549	40.05 (26.37 – 60.83)	1.32 (0.86 – 2.01)	1.09 (0.72 – 1.67)	0.89 (0.52 – 1.51)	
<b>Late Dementia</b>							
No Infection	2009	84239	23.85 (22.83 – 24.92)	1	1	1	0.2724
LRTI	507	19179	26.44 (24.23 – 28.84)	1.13 (1.02 – 1.25)	1.00 (0.90 – 1.10)	0.99 (0.88 – 1.12)	
UTI	437	12102	36.11 (32.88 – 39.66)	1.54 (1.39 – 1.71)	1.16 (1.04 – 1.28)	1.09 (0.95 – 1.24)	
SSTI	153	4869	31.42 (26.82 – 36.82)	1.34 (1.14 – 1.58)	1.09 (0.93 – 1.29)	1.17 (0.97 – 1.42)	

\*Adjusted for age, sex, country, consultation frequency, ethnicity, deprivation, alcohol, smoking, BMI, pre-morbid conditions, pre-stroke use of medication, anti-coagulant prescribing post stroke and depression (pre and post stroke)