**Table e-1: Search terms used to identify individuals with incident demyelination in the BSRBR-RA**

|  |  |
| --- | --- |
| MedDRA search terms | Demyelinating disorders (HLGT)  Central nervous system inflammatory disorders NEC (HLT)  Myelitis (inc infective) (HLT)  Nervous system autoimmune disorders (HLT) |
| Free text search terms | Multiple sclerosis  Clinically isolated syndrome  Demyelination  Demyelinating  Optic neuritis  Myelitis  MS  Cord lesion  Optic neuropathy  Internuclear ophthalmoplegia  INO  Spastic paraparesis  Primary progressive  Relapsing-remitting  Secondary progressive  Schilder’s  Devic’s  Balo concentric sclerosis |

**Table e-2: Breakdown of co-morbidity in patients in the BSRBR-RA with incident demyelination**

|  |  |  |  |
| --- | --- | --- | --- |
| **Co-morbidity (n, %)** | **Total patients (n=35)** | **Male patients (n=10)** | **Female patients (n=25)** |
| **Cardiovascular events (inc. stroke, hypertension, heart failure)** | 7 (20%) | 1 (10%) | 6 (24%) |
| **Epilepsy** | 1 (3%) | 1 (10%) | 0 |
| **Asthma** | 6 (17%) | 2 (20%) | 4 (16%) |
| **Chronic Bronchitis/Emphysema** | 2 (6%) | 0 | 2 (8%) |
| **Peptic ulcer** | 2 (6%) | 0 | 2 (8%) |
| **Liver disease** | 3 (9%) | 2 (20%) | 1 (4%) |
| **TB** | 1 (3%) | 0 | 1 (4%) |
| **Diabetes** | 1 (3%) | 0 | 1 (4%) |
| **Hyperthyroidism** | 1 (3%) | 0 | 1 (4%) |
| **Depression** | 6 (17%) | 2 (20%) | 4 (16%) |
| **Cancer** | 1 (3%) | 0 | 1 (4%) |

**Table e-3 – Sensitivity analysis: Standardised incidence ratio (SIR)**

1. **SIR for definite or probable demyelination events compared to English population data (GPRD & HES) from 1997-2010**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Biologic cohort** | | |
|  | **Observed** | **Expected** | **SIR (95% CI)** |
| **Female** | 15 | 21.78 | 0.69 (0.39-1.14) |
| **Male** | 6 | 3.63 | 1.65 (0.61-3.59) |
| **Total** | 21 | 25.42 | 0.83 (0.51-1.26) |

‘SIR’ for definite or probable demyelination events per 100,000 population

1. **SIR for all demyelination events in RA patients only events compared to English population data (GPRD & HES) from 1997-2010**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Biologic cohort** | | |
|  | **Observed** | **Expected** | **SIR (95% CI)** |
| **Female** | 19 | 19.94 | 0.95 (0.57-1.49) |
| **Male** | 6 | 2.72 | 2.21 (0.81-4.80) |
| **Total** | 25 | 22.66 | 1.10 (0.71-1.63) |

‘SIR’ for all demyelination events in RA patients only per 100,000 population