**Online supplement Table 1: Number of cases with a diagnosis of narcolepsy in the period before and after awareness in the EU and MSLT referral after study start and among them availability of EDS/cataplexy date (for those only EDS dates after April 1, 2009 are included)**

|  | **Nether-lands** | **Switzerland** | **Spain, Catalonia** | **Spain, Valencia** | **Argentina** | **Canada, Ontario** | **Taiwan** | **Total** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Children** |  |  |  |  |  |  |  |  |
| **Total cases included [N]** | **22\*** | **22** | **5** | **11** | **11** | **28** | **51** | **150** |
| **Diagnosis before awareness in EU (August 2010)** & MSLT referral after study start (April 1, 2009) | 3 | 1 | 0 | 2 | 1 | 11 | 10 | 28 |
| EDS/cataplexy date available and after study start (April 1, 2009) | 1 | 0 | 0 | 0 | 1 | <6 | 10 | <19 |
| Delay between EDS and diagnosis (Median days)# | 1735 | 453 |  | 878 |  | 481 | 140 |  |
| **Diagnosis after awareness in EU (Jul 31, 2010)** & MSLT referral after study start (April 1, 2009) | **19** | 21 | 5 | 9 | 10 | 17 | 41 | 122 |
| EDS/cataplexy date available and after study start (April 1, 2009)  | 15 | 13 | 2 | 6 | 9 | 10 | 39 | 100 |
| Delay between EDS and diagnosis (Median days)# | 808 | 571 | 761 | 619 | 238 | 596 | 127 |  |
|  |  |  |  |  |  |  |  |  |
| **Adults** |  |  |  |  |  |  |  |  |
| **Total cases included [N]** | **32** |  | **13** | **36** | **4** | **39** | **86** | **210** |
| **Diagnosis before awareness in EU** (August 2010) & MSLT referral after study start (April 1, 2009) | 7 |  | 5 | 6 | 0 | 11 | 20 | 49 |
| EDS/cataplexy date available for (Dx cases before Aug 2010) | 0 |  | 0 | 0 | 0 | <6 | 20 | <26 |
| Delay between EDS and diagnosis (Median days)# | 2066 |  | - | 870 | - | 738 | 118 |  |
| **Diagnosis after awareness in EU** (Jul 31, 2010) & MSLT referral after study start (April 1, 2009) | 25 |  | 8 | 30 | 4 | 28 | 66 | 161 |
| EDS/cataplexy date available and after study start (April 1, 2009) | 6 |  | 3 | 23 | 3 | 8 | 61 | 106 |
| Delay between EDS and diagnosis (Median days)# | 2654 |  | 1181 | 595 | 952 | 713 | 135 |  |

\*Nine child cases born between 2004 and 2009 were included in a case-coverage study for reasons described in the methods nd not the case control The child case total for the Netherlands includes nine from the case-coverage study and 13 from the case-control study.

\*\*Cell values that represent case counts of five or fewer (for Ontario, Canada) or two or fewer (for Taiwan) cases may not be reported as absolute numers due to patient privacy regulations and are represented as range (i.e. ≤ n).

# Median delays calculated between date of available EDS date and Diagnosis date in subjects diagnosed after start of study period (April 1, 2009), not considering date of MSLT or EDS to be after study entry

**Online supplement Table 2: Overview of national immunization programs for H1N1pdm09**

|  |  |  |  |
| --- | --- | --- | --- |
| **Country** | **Vaccine(s) Used** | **Target Population** | **Population Based coverage Rates** |
| Argentina | Focetria | Risk groups | < 4 yo in risk groups=86%> 4 yo in risk groups= 99% |
| Canada | Arepanrix, Unadjuvanted for pregnant women only, Panvax H1N1 (CSL) for pregnant women late in program | Entire population | In those aged ≥12 years:Ontario: 32.2% (30.3%-34.0%)Manitoba: 37.2% (33.2%-41.2%)Alberta: 37.1% (33.9%-40.2%)British Columbia: 35.6% (32.8%-38.4%) |
| Denmark | Pandemrix | Risk groups | 6% among adults |
| Netherlands | Pandemrix (<5 yo)Focetria (> 6mo) >5 yoFocetria, Pandemrix (family of children < 5 yo) | Risk groups | < 5 yo= 75%Risk groups 70% |
| SpainValencia | Focetria 6 -17 yearsPandemrix 18 to 59 y-o, Focetria > 60,Panenza for pregnant women | Risk groups | **SIDIAP:** < 18: 0.82%, all population 3.5 %**Valencia:** 6 months-14 years (with risk factors):11%15-59 years (with risk factors): 13%60 years or older (with risk factors): 28%Pregnant women= 9%Healthcare workers & professionals providing special services: 30% |
| Sweden | Pandemrix | Entire population | < 18 yo = 12% > 18 yo = 12-14%  |
| Switzerland | Focetria(<6mo-18 yoa, pregnant women)Pandemrix (>18yoa), Celtura (>3yoa), Fluzone (>3months) | Risk groups |  < 18 yo= 10% > 18 yo = 20% |
| Taiwan | AdimFlu-S, unadjuvanted (≥1 yo)Focetria (≥6 mo) | Entire population | 6 mo–18 yo = 67%≥19 yo = 12% |

**Online supplement table 3: Table Population based frequency of the HLA DQB1\*0602 polymorphism at selected sites.**

|  |  |  |
| --- | --- | --- |
| **Country** | **HLA DQB1\*0602 Polymorphism Population Based Frequency** | **Source** |
| Taiwan | 3.4% | Chen P.L., et al., Comprehensive Genotyping in Two Homogeneous Graves’ Disease Samples Reveals Major and Novel HLA Association Alleles. PLoS ONE 2011 |
| Argentina | 15.2% | Caputo M., et al., GENOTIPIFICACION DEL GEN HLA DQB1 EN DIABETES AUTOINMUNE DEL ADULTO (LADA). MEDICINA (Buenos Aires) 2005 |
| Canada (Ontario) | 18 - 24.8% (depending on source) | Personal communication, Kathryn Tinckam, University of Toronto, ON, CanadaKotb M., et al., An immunogenetic and molecular basis for differences in outcomes of invasive group A streptococcal infections, *Nature Medicine* 2002 |
| Canada (BC) | 25.33 | Poirier G., et al., HLA Antigens in Narcolepsy and Idiopathic Central Nervous System Hypersomnolence. Sleep 1986 |
| The Netherlands | 24% | Tafti M., et al., DQB1 Locus Alone Explains Most of the Risk and Protection in Narcolepsy with Cataplexy in Europe. Sleep 2014 |
| Spain (IDIAP) | 15% | Balas A., et al., Allelic and haplotypic HLA frequency distribution in Spanish hematopoietic patients. Implications for unrelated donor searching. Tissue Antigens 2011 |
| Spain (FISABIO) | 14.5% | Crespi C., et al., HLA polymorphism in a Majorcan population of Jewish descent. Tissue Antigens 2002 |
| Switzerland | 12-21% (depending on source) | Personal communication, Jan Bonhoeffer, University Children’s’ Hospital Basel, Switzerland.Buhler S., et al., The Heterogeneous HLA Genetic Makeup of the Swiss Population. PLoS ONE 2012 |

**Online supplement Figure 1: Graphic representation of patient inclusion for primary index date analysis: Patient A has MSLT after April 2009 and is included, patient B will be excluded since MSLT onset is prior to start of study period. Patient C is included**

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