



## **Incidence of Toxic Epidermal Necrolysis and Steven-Johnson Syndrome in an HIV Cohort: An observational, retrospective case series study**

- Mittmann N, Knowles SR, Koo M, Shear NH, Rachlis A, Rourke SB
- American Journal of Clinical Dermatology, 2012

### ***What research question is addressed by 'Incidence of Toxic Epidermal Necrolysis and Stevens-Johnson Syndrome in an HIV Cohort: An observational, retrospective case series study'?***

The study objective was to determine the diagnosis and incidence of confirmed TEN/SJS in a cohort of Ontario people living with HIV (PHAs) who are receiving combination antiretroviral therapy and other HIV-related treatments.

### ***What was the study conclusion?***

The study found five (5) cases of TEN/SJS among approximately 3,700 individuals in the OCS database.

### ***Why is this question important?***

TEN/SJS represent different degrees (levels of severity) of a mucocutaneous (the mucous membrane between the body and the skin) drug reaction. PHAs have been reported to be at high risk of developing TEN/SJS due to hypersensitivity reactions to both antiretroviral drugs and other medications (such as antimicrobial drugs). Mortality rates from TEN/SJS in the general population range from 20% - 25%.

### ***How was the study conducted?***

Researchers conducted a search of the OCS database for possible cases of SJS/TEN reported between 1995 and August 2008 (the total cohort size was 3,710), along with drug utilization, clinical and demographic data. Diagnostic criteria for SJS/TEN were established and possible cases examined by two independent reviewers.

### ***What were the main results of the study?***

Out of 17 possible cases of TEN/SJS, researchers confirmed five (5) diagnoses, with the remaining cases classified as indeterminate (n=2) or not SJS/TEN (n=10). The result was an incidence rate of four (4) per 3500, much higher than the one (1) in 1,000,000 reported in the general population but lower than the one (1) in 1000 rate previously reported in AIDS patients. Several drugs (nevirapine, sulfamethoxazole/trimethoprim, d4T and clarithromycin) were associated with the diagnosis or were being administered at the time of the SJS/TEN diagnosis.



***What do the study results mean for the treatment and care of people living with HIV?***

These findings highlight the importance of confirming the adverse event diagnosis. Eighteen cases were identified through the original search but only 28% of these were actually diagnosed as true TEN/SJS. Misdiagnosis may lead to an inflation of incidence rates and highlights the importance of careful evaluation at the time of the event to ensure appropriate clinical classification.

***Where can I find the full-length publication of this study?***

This study was published in the American Journal of Clinical Dermatology. The full text version is available at: <http://www.ncbi.nlm.nih.gov/pubmed/22145749>.

The **Ontario HIV Treatment Network Cohort Study (OCS)** is an ongoing research study that collects clinical, social and behavioural information about people living with HIV (PHA) in Ontario. Participation in the study is voluntary, and all personally identifying information of study participants is removed to ensure confidentiality. The OCS was established to improve our understanding of HIV and to inform HIV prevention, care and treatment strategies for people living with HIV and groups at increased risk of HIV infection. For more information about the OCS, please contact the OCS Research Coordinator, Brooke Ellis at: [bellis@ohln.on.ca](mailto:bellis@ohln.on.ca).