

The Canadian Spine Society is a collaborative organization of spine surgeons advancing excellence in research, education and patient care

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# 20<sup>th</sup> ANNUAL SCIENTIFIC CONFERENCE OF THE CANADIAN SPINE SOCIETY

Wednesday, February 26<sup>th</sup> - Saturday, February 29<sup>th</sup>



## ABSTRACTS FOR PRESENTATION 2020

Fairmont Château Whistler 4599 Château Boulevard Whistler British Columbia V8E 0Z5  
Canada

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**Accreditation:** *This event is an Accredited Group Learning Activity (Section 1) as defined by the Maintenance of Certification Program of the Royal College of Physicians and Surgeons of Canada, approved by The Canadian Orthopaedic Association.*

**Course Objectives:** *Every year the Canadian Spine Society in conjunction with the Canadian Paediatric Spine Society holds its Annual Scientific Conference. This year the CSS and the CPSS are joined by Spine Societies from the United Kingdom and Brazil. The meeting will cover both adult and paediatric spinal conditions and include etiology, clinical presentation and current treatment, both surgical and non-operative. The format is a CME approved combination of didactic lectures, symposia, poster presentations and case reviews. There are sessions specifically aimed at surgical residents and fellows debating the appropriate operative management of selected cases with senior clinicians. A particular focus is the natural history of untreated scoliosis, combining insights from both the Canadian and the Brazilian experience. Timely access to care is an ongoing concern worldwide and the knowledgeable participants will advance constructive solutions. The British Association of Spine Surgeons will hold a symposium on the diagnosis and treatment of Acute Cauda Equina Syndrome. Spine specialists in all countries face similar clinical problems but employ differing solutions depending on local resources and healthcare delivery. The program offers ample opportunity for professional contact, sharing ideas and problems. The agenda design promotes comfortable, extended interaction with the exhibitors allowing attendees the chance to inspect and assess the latest surgical equipment and implants. The collegial atmosphere enhances sharing knowledge and discourages aggressive marketing. This Annual Scientific Conference remains the most important spine meeting in Canada.*



## Pre-operative decolonization does not adversely affect the microbiologic spectrum of spine surgical site infection

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### Objectives

In 2011, a pre-operative decolonization program was introduced for all spine patients, using intranasal photodisinfection therapy, in addition to chlorhexidine-impregnated body wipes (PDT/CHG). This intervention resulted in an absolute risk reduction of 5.2% [spine surgical site infection (SSI) reduction from 7.2% to 2% from 2011-2014]. It is unknown whether such decolonization affects the microbiological spectrum of subsequent surgical site infections, as this could have profound treatment implications. The purpose of this study was to investigate the effect of PDT/CHG on the microbiology of subsequent surgical site infections.

### Method

Data was prospectively collected by our institutional SSI surveillance program and our Spine SAVES2 system. We examined SSI organism types for a period prior to PDT/CHG (2010 to August 31<sup>st</sup>, 2011), and a period post PDT/CHG (2015 to 2018). Cultures from infected sites within a week of symptom onset, as well as within a week before and after a source control procedure, if applicable, were examined for the implicated organism(s).

### Results

Of 37 SSIs pre-implementation, 54% of patients had mono-microbial infections with gram-positive organisms (85% were staphylococci), 13% had mono-microbial gram negative infections (all were *Enterobacteriaceae*), 16% had poly-microbial infections, and the remaining 17% had no growth or no specimens available for analysis.

Among 34 SSIs post-implementation, 59% (n=20) had gram positive organisms (90% were staphylococci), 20% (n=7) had gram negative organisms, 15% (n=5) had polymicrobial infections, and 6% (n=2) had no cultures collected.

### Conclusions

In conclusion, based on this small cohort of spine surgery patients, the microbiological spectrum of SSIs was similar pre and post implementation of PDT/CHG. Contrary to other methods, including nasal mupirocin and intra-wound antibiotics, PDT/CHG does not adversely affect the microbiologic spectrum of subsequent infections, while resulting in significant reduction in SSI rates.