

## **Direct Costs of Systemic Lupus Erythematosus in Alberta in Real World**

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**Background:** Systemic lupus Erythematosus (SLE) is a chronic multi-system autoimmune disease that can affect a person's physical, mental, and social life. It imposes a substantial economic burden up on patients, carers, healthcare systems, and wider society. This study estimated the direct costs of SLE in Alberta.

**Methods:** Alberta maintains a publicly funded, universally available health care system. Health service use and direct healthcare costs of SLE and non-SLE cases were determined from inpatient hospital services, fee-for-physician services, emergency services, and ambulatory care services. All costs were estimated for calendar year 2016. Data were analysed using central measures specifically the mean to determine the annual costs of SLE and non-SLE.

**Results:** A total number of 10,932 (Male = 2,546; Female = 8,386), and 41,851,36 (Male = 21,157,76; Female = 20,693,60) of SLE and non-SLE cases, respectively were included in this study. The mean annual costs of SLE, and non-SLE per case were \$7,740.19 (Male = \$7,986.59; Female = \$7,665.38), and \$2,479.53 (Male = \$2,265.57; Female = \$2,698.30), respectively. The mean annual costs of fee-for-physician services (SLE = \$2,160.03; non-SLE = \$840.00), inpatient hospital services (SLE = \$3,462.86; non-SLE = \$1,007.29), emergency services (SLE = \$440.28; non-SLE = \$176.65), and ambulatory care services (SLE = \$1,677.03; non-SLE = \$455.05) per case were estimated.

**Conclusion:** The findings showed that the costs of SLE were considerably high for patients and healthcare system. This highlights the importance of appropriate treatment and management of SLE. Further studies are required to fully investigate both the direct and indirect economic burden of SLE including out-of-pocket expenses, costs to patients and caregivers and productivity loss.