

## EVALUATION OF A NEEDS-BASED, PROVINCIALY-FUNDED, INSULIN PUMP PROGRAM

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### BLINDED VERSION

**Purpose:** Provide a comprehensive evaluation spanning the first 3 years of a needs-based, provincially-funded, insulin pump program (IPP).

**Methods:** Data from multiple sources were linked at an individual level for 2013-2016.

**Results:** Annual enrolment was stable ( $n \approx 58/\text{yr}$ ) with no sex difference. At enrolment, 72% of enrolees were  $\leq 18$  yrs and 43% were new pumpers. The IPP has 9-11 medical eligibility (ME) criteria, depending on age/time in the program. Most enrolees met the appropriate ME criteria at and post-enrolment; the exception being the personalized A1C goal (20% met the goal at enrolment and 53% were within 1.0%). At enrolment, 99% of enrolees met the criterion of  $\leq 2$  DKAs in the last 12mo; 100% of enrolees met the more stringent criterion of  $\leq 1$  DKAs in the last 12mo in each year post-enrolment.

A1C did not change in the first year post-enrolment for new or existing pumpers. A1C was lower in the first year post-enrolment for those who renewed (8.4%) versus discontinued (8.9%) coverage. By the second year, it was similar for both groups (8.7% and 8.8%, respectively). Few enrolees (14%) met age-specific targets in the 12mo prior to first enrolment; this percentage further declined post-enrolment.

**Conclusions:** Employing ME criteria is critical for ensuring the safety of IPP enrolees. The low rate of attaining age-specific A1C targets speaks to the difficulty of achieving these targets and highlights the importance of working with a specialized diabetes care team to set realistic, mutually agreed upon, personalized goals focussing on improved glycemic management.

### UNBLINDED VERSION

**Purpose:** Provide a comprehensive evaluation spanning the first 3 years of the needs-based, provincially-funded, Nova Scotia Insulin Pump Program (NSIPP).

**Methods:** Data from multiple sources were linked at an individual level for 2013-2016.

**Results:** Annual enrolment was stable ( $n \approx 58/\text{yr}$ ) with no sex difference. At enrolment, 72% of enrolees were  $\leq 18$  yrs and 43% were new pumpers. The IPP has 9-11 medical eligibility (ME) criteria, depending on age/time in the program. Most enrolees met the appropriate ME criteria at and post-enrolment; the exception being the personalized A1C goal (20% met the goal at enrolment and 53% were within 1.0%). At enrolment, 99% of enrolees met the criterion of  $\leq 2$  DKAs in the last 12mo; 100% of enrolees met the more stringent criterion of  $\leq 1$  DKAs in the last 12mo in each year post-enrolment.

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