



Access to Zoledronic Acid Through the Public Drug Plan for Seniors in Ontario



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Background

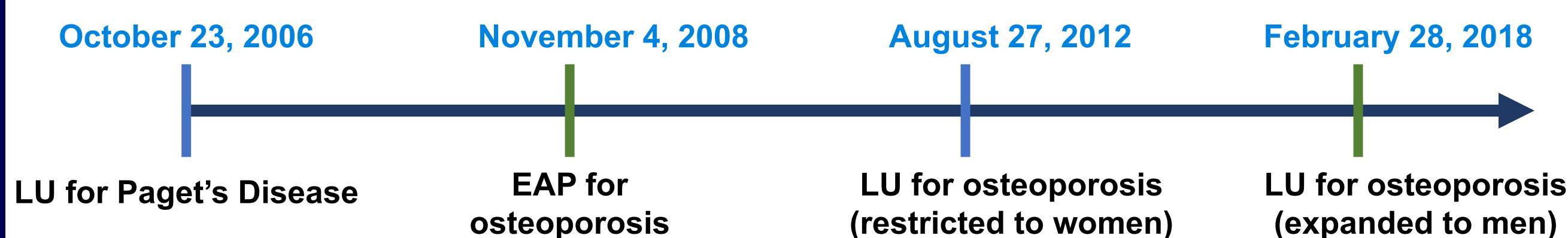
Zoledronic Acid Therapy for Osteoporosis

Zoledronic acid is a second-line therapy for osteoporosis in Ontario

- It is an intravenous bisphosphonate dosed yearly that is effective in reducing the risk of fracture

Public Drug Coverage and Policy Changes

- Coverage for all Ontario residents ≥65**
 - Exceptional Access (EAP):** apply for coverage
 - Limited Use (LU):** restricted to certain patients
 - General Benefit:** all ODB recipients



Objective: Describe patient characteristics and osteoporosis drug utilization patterns among seniors initiating zoledronic acid in Ontario

Methods

- Data Sources:**
- Ontario healthcare administrative data
 - Patient enrolment data linked with medical and pharmacy claims

- Study Cohort:**
- Ontario residents aged ≥66 years initiating zoledronic acid, 2006/07 - 2020/04

- Analysis:**
- Identify the number of new users
 - Describe patient characteristics
 - Identify future osteoporosis medication use

Results

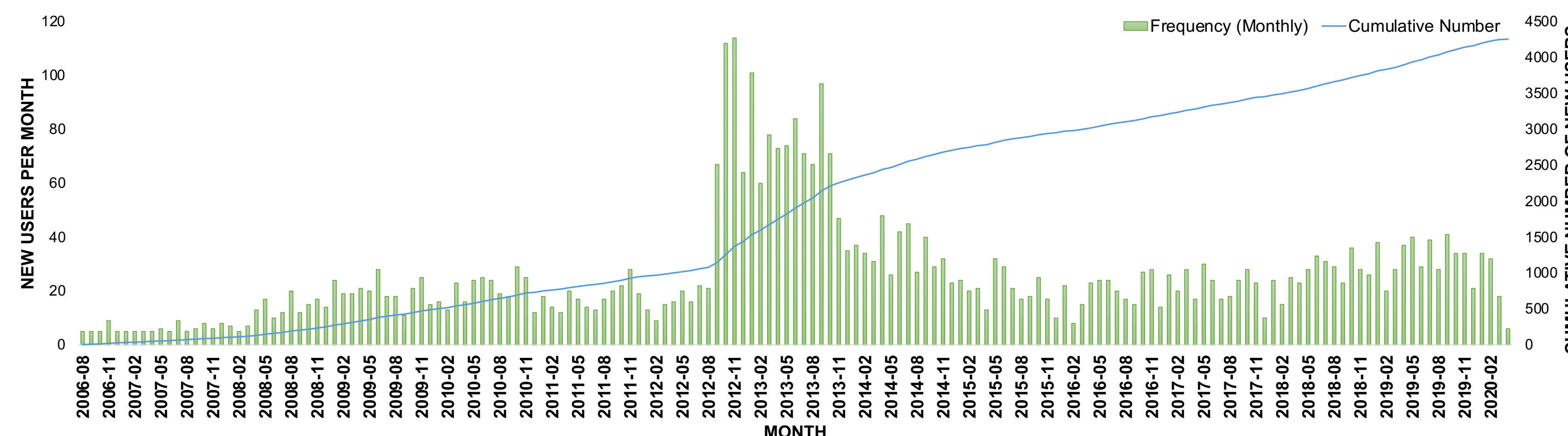


Figure 1. Cumulative and monthly zoledronic acid initiators, 2008/03 – 2020/04, N = 4,235

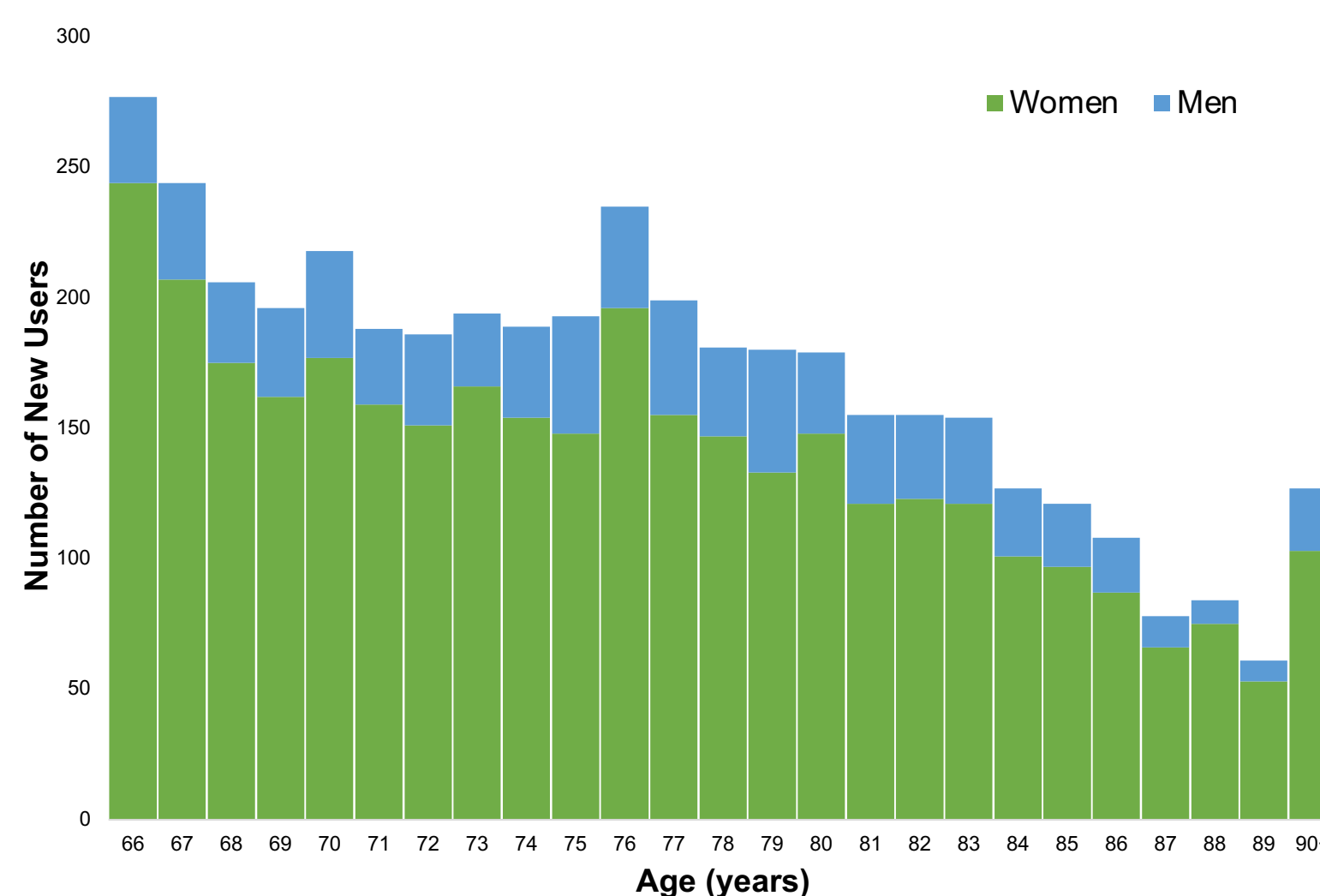


Figure 2. Age distribution of zoledronic acid initiators

Table 1. Characteristics of zoledronic acid initiators

Characteristic	All Patients N=4,235	
	N	%
Female	3,469	81.9
Age, mean ± SD	76.08	6.9
Paget's Disease	438	10.3
Fracture in the past 12 Months		
Any of below	311	7.3
Hip	86	2.0
Clinical Vertebral	90	2.1
Radius / Ulna	109	2.6
Humerus	57	1.3

Table 2. Limited use access criteria of zoledronic acid initiators in Ontario, 2006-2020

Limited use access criteria	07/01/2006 - 08/26/2012 (n=1,048)		08/27/2012 - 02/27/2018 (n=2,424)		02/28/2018 - 04/31/2020 (n=763)	
	N	%	N	%	N	%
Paget's Disease	1,017	97.0	483	19.9	135	17.7
Osteoporosis – Women	0	0	1933	79.7	549	71.9
Osteoporosis – Men / Other	31	3.0	8	0.3	79	10.3

Results

Table 3. Osteoporosis medication use in zoledronic acid initiators

Medication	Since 1996		Past 12 Months		Future Use	
	N	%	N	%	N	%
Oral Bisphosphonate	2,717	64.2	1,050	24.8	508	12.0
Alendronate	1,414	33.4	389	9.2	153	3.6
Risedronate	1,778	42.0	657	15.5	383	9.0
Etidronate	1,030	24.3	46	1.1	14	0.3
Denosumab	355	8.4	218	5.1	1,259	29.1
Raloxifene	313	7.4	94	2.2	56	1.3
Calcitonin	33	0.8	7	0.2	≤ 5	≤ 5

Conclusions

- Zoledronic acid is **not readily available** for patients in Ontario
- Paget's disease is rare and thus the **validity of LU codes and use to treat Paget's disease is uncertain**
- Many patients **switch to a non-bisphosphonate treatment**, denosumab, after zoledronic acid

Limitations

- Ontario Drug Benefit program is limited to Ontarians ≥65 and on social assistance

Next Steps

- Understanding of benefits and safety by number of zoledronic acid doses and osteoporosis sequential therapy

Acknowledgements

