

PATTERNS OF SYMPTOMS BURDEN IN NEUROENDOCRINETUMORS: A POPULATION-BASED ANALYSIS OF PATIENT-REPORTED OUTCOMES.

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Julie Hallet, MS MSc; Laura E Davis, MSc; Alyson L Mahar, PhD; Calvin HL Law, MD MPH; Elie Isenberg-Grzeda, MD; Lev D Bubis, MD; Simron Singh, MD MPH; Sten Myrehaug, MD; Haoyu Zhao, MSc; Kaitlyn Beyfuss, MSc; Lesley Moody, MBA PhD(c); Natalie G. Coburn, MD MPH

Susan Leslie Multidisciplinary Neuroendocrine Tumours Clinic, Odette Cancer Centre – Sunnybrook Health Sciences Centre, Toronto ON; Department of Surgery, University of Toronto, Toronto, ON; Sunnybrook Research Institute, Toronto, ON; Department of Community Health Sciences, University of Manitoba, Winnipeg, MB; Cancer Care Ontario, Toronto, ON; Institute of Clinical Evaluative Sciences, Toronto, ON.

BACKGROUND

- NETs patients have expressed difficulty finding disease-specific support;
- NETs have a unique potential to impact quality of life by combining prolonged survival with potentially hormonally active disease;
- Symptom tracking and ongoing supportive care are a challenge in NETs care;
- Validated assessments of NETs symptom burden remain very limited even though they are particularly crucial for this chronic cancer

OBJECTIVE

To examine patterns and risk factors of symptoms burden over time in NETs, using patient-reported outcome tool.

CONCLUSION

- **High prevalence** of moderate-to-severe symptoms in patients with NETs, with no change over time.
- Patients **remain at risk of prolonged symptom burden** following diagnosis, highlighting potential unmet needs.
- Patient and disease factors associated with moderate-to-severe symptom scores have been described to **facilitate the design of patient support strategies.**

METHODS



RESULTS



Data
Discovery
Better Health

SUSAN LESLIE CLINIC FOR
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M E T H O D S



DATA SOURCES: linked administrative healthcare datasets in a universally-accessible publicly-funded healthcare system (Ontario, Canada)

POPULATION: Adults diagnosed with NETs from 2004-2015, in the Ontario Cancer Registry

OUTCOMES: patient-reported symptom severity

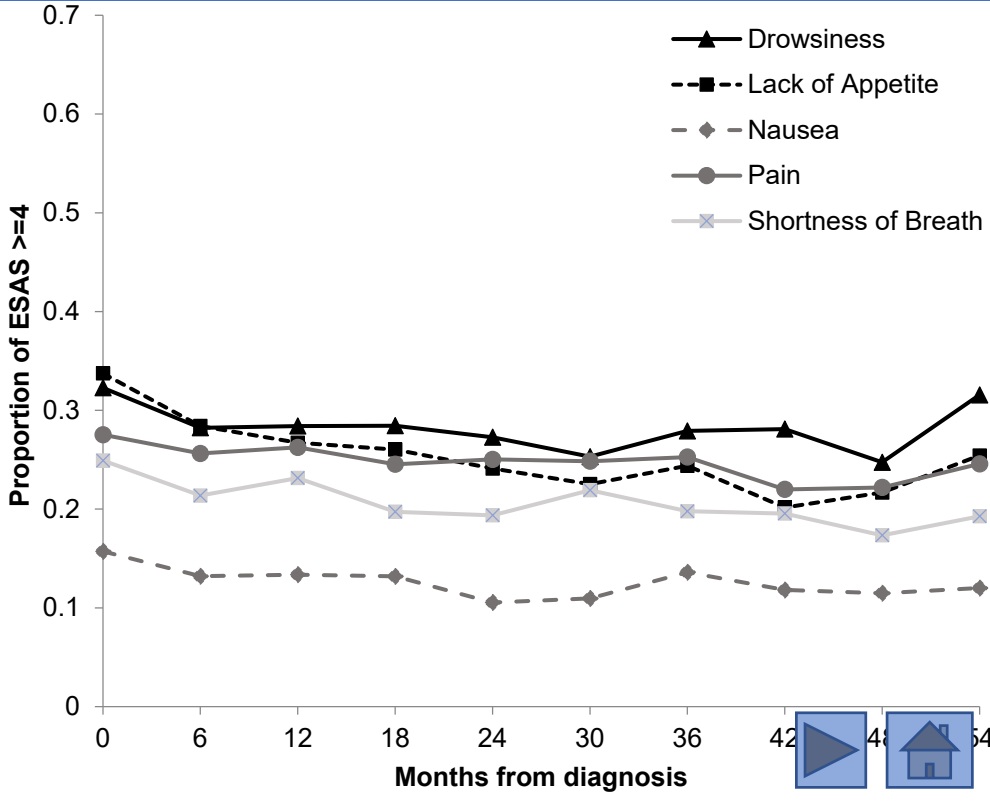
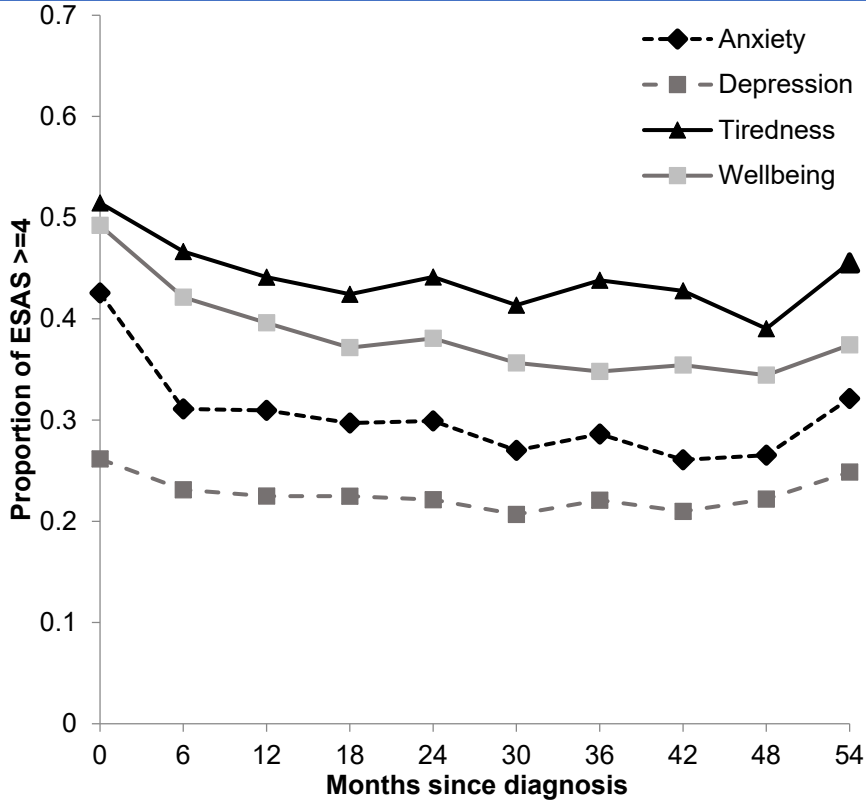
- **Edmonton Symptom Assessment System (ESAS):** validated and reliable tool to assess cancer-related symptoms
- **9 common symptoms:** pain, tiredness, drowsiness, nausea, lack of appetite, shortness of breath, depression, anxiety, and overall wellbeing
- Numeric scale from 0 (no symptom) to 10 (worst possible)
- Routinely collected during outpatient cancer clinic visit province-wide
- **Moderate-to-severe symptoms:** score ≥ 4

ANALYSIS:

- Moderate-to-severe symptom severity prevalence reported at 6-month intervals from date of diagnosis to 5 years after
- Factors associated with moderate-to-severe symptoms :
 - Modified Poisson regression with generalized estimating equations
 - Covariates defined a priori
 - Therapy treated as time-dependent variable examining ESAS scores within 30 days following the receipt of therapy.

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Prevalence of moderate-to-severe symptoms from date of diagnosis to 5 years following diagnosis



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Factors associated with moderate-to-sever symptom severity

Variable	Value	Anxiety	Depression	Drowsiness	Lack of appetite	Nausea	Pain	Shortness of breath	Tiredness	Overall wellbeing
Age (years old) Ref: 18-39 years old	40-59	↓				↓				↓
	60-79	↓				↓				
	80-99		↑							
Female sex (Ref: Male)										
Diagnosis 2011-2015 (Ref: 2004-2010)					↓				↓	
Urban living (Ref: Rural)										
Socio-economic status (quintile) Ref: 5 th (highest)	1 st (lowest)	↑	↑	↑						
	2 nd			↑						
	3 rd									
	4 th									
High comorbidity burden (ACG score >=10)			↑	↑	↑	↑	↑	↑	↑	↑
Primary tumor site Ref: broncho-pulmonary	Gastro-enteric			↓	↓		↓	↓	↓	↓
	Pancreatic							↓		
	Others							↓		
Metastatic status Ref: None	Synchronous	↑		↑	↑				↑	↑
	Metachronous	↑	↑		↑	↑	↑		↑	↑
Therapy (within 30 days prior to ESAS score) Ref: No therapy	Radiation			↑	↑	↑	↑		↑	↑
	Chemotherapy			↑	↑	↑			↑	↑
	Liver embolization				↑				↑	↑
	Surgery				↑		↑	↑	↑	↑