

INTRODUCTION

- Chemotherapy-induced peripheral neuropathy (CIPN) is a frequent dose-limiting side effect of neurotoxic chemotherapeutic agents (e.g., taxanes, platinum, bortezomib)¹. Common clinical presentation of CIPN include sensory disturbances such as paraesthesia and dysesthesia in hands and/or feet, with a "glove-and stocking" distribution². The literature has shown the prevalence of CIPN to be 68.1% within the first month of chemotherapy³.
- Due to the emerging evidence suggesting potential benefit, acupuncture and exercise therapy have been included in the ASCO guideline update for prevention and management of CIPN⁴.
- Acupuncture is 1 of 5 Integrative Oncology therapies offered in the Supportive Care and Integrative Oncology Department at Chris O'Brien Lifehouse, a Comprehensive Cancer Centre located in Sydney, Australia.
- In order to understand the clinical needs of our patient population we used a newly established pilot ePROMs program in the Supportive Care & Integrative Oncology department to electronically deliver and collect PROMs to screen for symptom burden and services accessed.
- Primary aim:** Assess the effectiveness of the ePROMs program and surveys (ESAS-17 & MyCAW®) to identify incidence of CIPN related symptoms to inform the development of Supportive Care & Integrative Oncology services in the context CIPN symptom management

METHODS

Study design: Retrospective cross-sectional

Data collection: The ongoing pilot ePROMs program introduced in May 2022 requires all patients with an outpatient appointment with Supportive Care & Integrative Oncology to complete the ESAS-17 and MyCAW® PROMs electronically prior to their appointment. For the current study, ESAS-17 and MyCAW® data collected between May-December 2022 were retrieved and assessed. Occasions of service where the 'numbness/tingling' item on the ESAS-17 was scored between 1-10 were identified, then screened by their respective MyCAW® responses which included CIPN symptoms as their primary concern. Demographic and disease-related data were also collected from the EMR.

Outcome measures: Descriptive statistics was conducted for survey completion rate, frequency of CIPN symptoms or 'numbness/tingling' reported, occasions of service for acupuncture comparative to other modalities, demographic and disease-related characteristics.

Ethics approval was granted for this retrospective cross-sectional analysis (Ethics number: 2019/ETH07310).

RESULTS

- A total of 819 patients completed the ESAS-17 and MyCAW® surveys with an observed 87.0% completion rate (2150/2472 occasions of service).
- Overall, 'numbness/tingling' was the 3rd most frequently reported symptoms on the ESAS-17, with 1555 occasions of service, with more than half of the patients (65.0%) noting the symptoms as one of their concerns (Figure 1).
- CIPN symptoms (which include 'numbness/tingling') was noted as a primary complaint according to the respective MyCAW® response in n=76 patients (9.2%) across 7 modalities, accounting for 229 occasions of service (Figure 2). Acupuncture was the most utilised service for CIPN symptoms with 131 occasions of service for n=42 patients, with a mean of 3.1 visits.
- The age range was 60, minimum 23 and maximum 83 years old, mean age was 57.4 years.
- Just under half (46%) of the patients who used acupuncture for CIPN symptoms were patients with breast cancer, followed by patients with gynaecological (17%) and colorectal (11%) (Figure 3).
- Of the 76 patients seeking acupuncture treatment for CIPN symptoms, 62% were in the post-chemotherapy phase of their treatment.

Figure 1: ESAS-17 Patient Symptom Scores

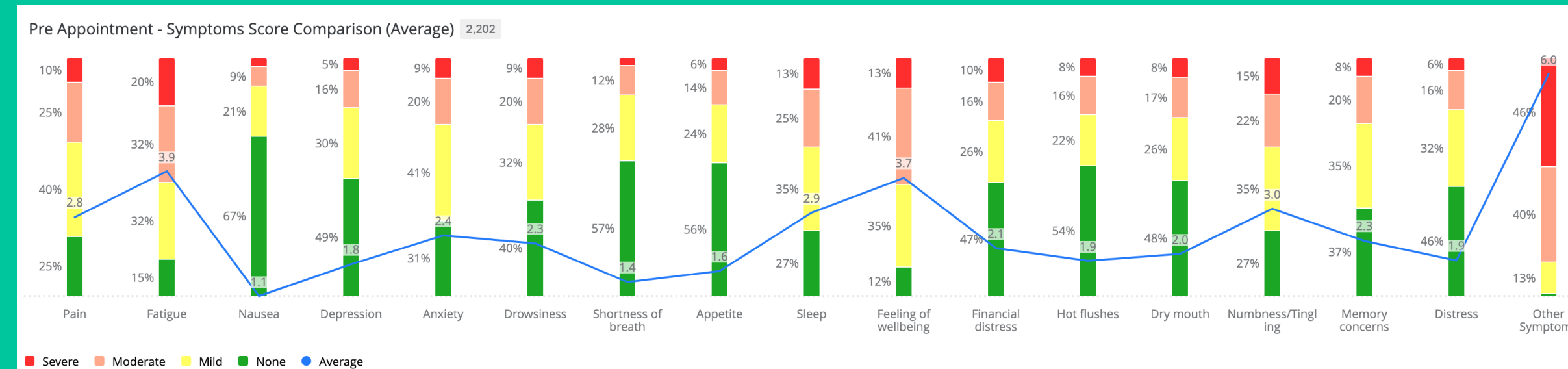


Figure 2: Frequency of occasions of service presenting with CIPN as primary concern

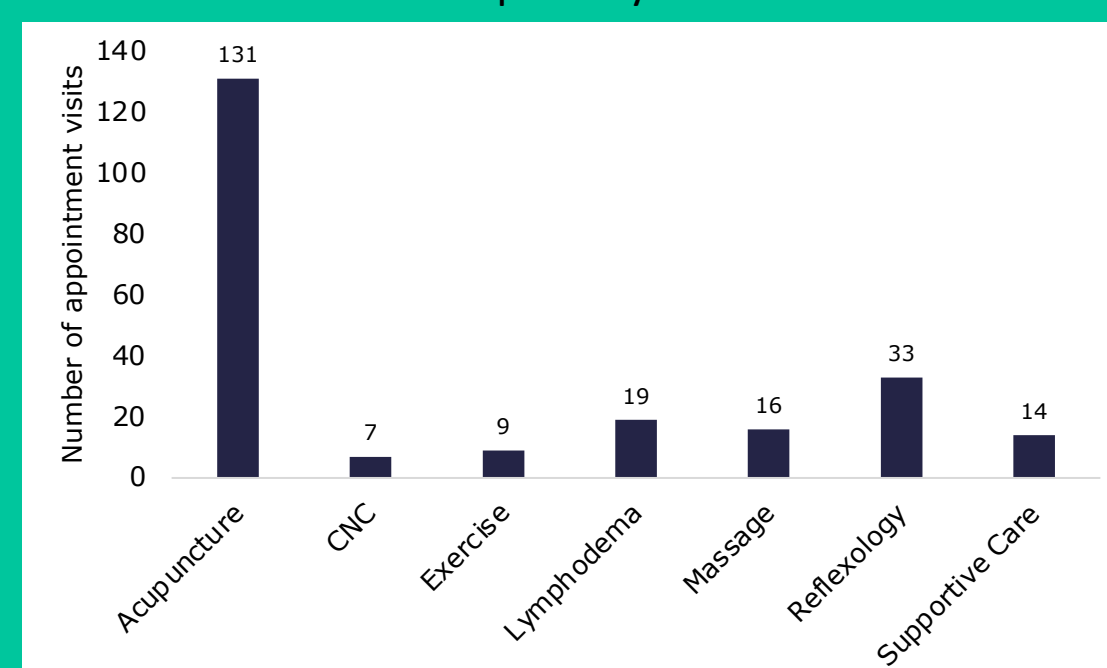
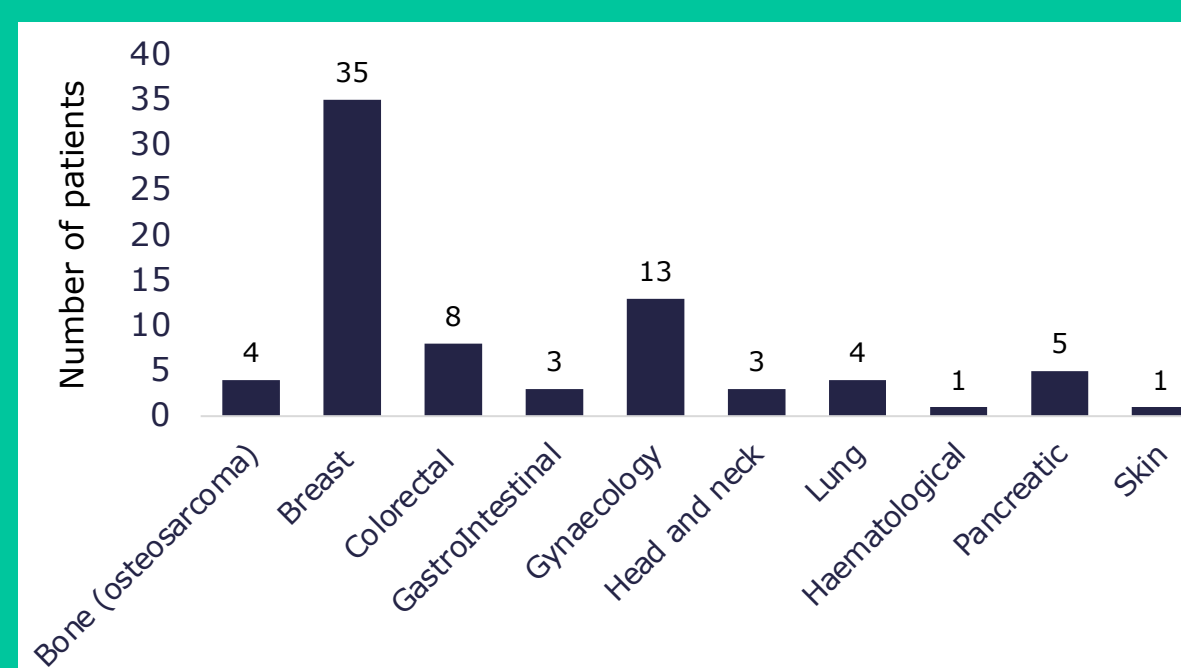


Figure 3: Acupuncture-use for CIPN symptom presentation across different tumour streams



DISCUSSION

- Overall, the introduction of the ePROMs program in the Supportive Care & Integrative Oncology department at Chris O'Brien Lifehouse was well-received by patients and acceptability was high with 87% completion rate of ePROMs.
- Our findings regarding the electronic delivery and collection of PROMs was determined an effective method to gather consistent self-reported clinical data from patients. However, our analysis identified a gap between the literature reported CIPN prevalence compared to actual patients seen within the Supportive Care & Integrative Oncology department. People who presented to our service with CIPN accounted for only 9.2% compared to the literature prevalence of 68.1%. Suggested reasons for this disparity may be:
 - The **appropriateness of the screening tool** used, CIPN specific PROMs may improve identification of symptoms. While the combined scores of ESAS-17 and MyCAW® was a useful way to screen and identify common symptoms experienced throughout cancer treatment, it proved to be a limited tool in assessing self-reported symptoms of CIPN. CIPN is a multifaceted condition and clinical presentation can include a wide range of symptoms that does not always present with 'numbness/tingling', this diverse symptom presentation was somewhat captured by the respective MyCAW® responses (as free-text is allowed).
 - Patients' limited awareness of CIPN presentation** may be a barrier to seeking treatment earlier, which may explain why more than half (62%) of the patients received treatment post-chemotherapy.
 - Limited understanding of optimal symptom management and the role of Supportive Care & Integrative Oncology** may be the largest barrier to accessibility to the service. This in turn could be due to limited well designed clinical trials showing efficacy of acupuncture as treatment for CIPN.

CONCLUSION

Over an 8-month period, the Supportive Care & Integrative Oncology department saw n=533 patients (72%) who scored 'numbness/tingling' as one of their concerns on the ESAS-17, of those patients only n=76 self-reported CIPN symptoms, accounting for 9.2% (229/2150) of the cohort. This finding highlights the gap between reported prevalence of common morbidities (CIPN) seen in cancer treatment versus actual encounters in clinical practice and these gaps we've identified warrant further investigation.

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