Brief Report

Buprenorphine-Naloxone for Chronic Cancer-Related Pain in a Palliative Care Clinic

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Background

- Cancer related pain is a common problem
- Moderate to severe cancer pain often requires use of opioids
- Cancer patients are now living significantly longer
- Long term opioid use is significantly increasing in the cancer population (i.e. greater than 90 days of consecutive use)
    - Increased long term adverse effects, opioid use disorder, hyperalgesia, gastrointestinal issues, overdose risk etc.

Background

- Buprenorphine has literature in the cancer and palliative population, but not well defined
- Unique pharmacology with partial mu opioid receptor agonism and kappa and delta opioid receptor antagonism
- Buprenorphine transdermal patch is available commercially, but in Alberta is not publicly funded
- Buprenorphine/naloxone sublingual often indicated for opioid use disorder is provincially funded
- Buprenorphine transdermal patch maximum strength is 20 mcg/hr patch (Morphine daily equivalent ~50 mg/day)

Methods

- Retrospective descriptive study
- Gathering routinely collected clinical data from our ambulatory clinic
- Patients remaining on buprenorphine-naloxone (bup-nal) for greater than 2 weeks were included in the final analysis
- Time frames at 2, 4, 8, and 12 weeks post initiation of bup-nal
- Inclusion:
  - Adults with advanced stage cancer referred to our ambulatory team from April 1, 2020 to June 30, 2023
  - Experiencing unacceptable pain control and/or adverse effects

Results

- Select demographics information

Table 1
Descriptive Analysis of Persons Included in the Study

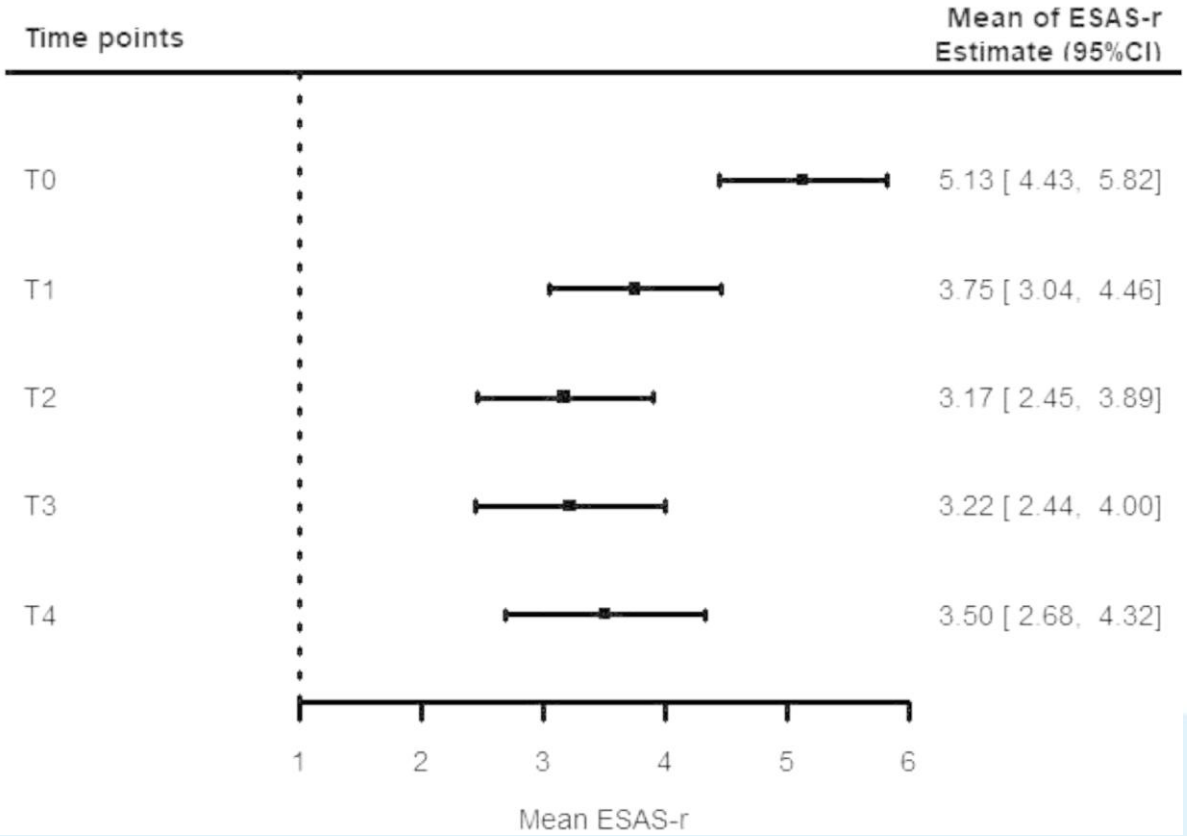
Characteristic	Total *n* (%)
Number of persons	47
Age	
Mean (SD)	56.2 (11.7)
Median (IQR)	56.5 (49.5–65.0)
Sex	
Female	23 (48.9%)
Male	24 (51.1%)
Duration of opioid use prior to Bup-Nal (mo)	
≤6	13 (27.7%)
7–12	8 (17.0%)
13–24	16 (34.0%)
>24	10 (21.3%)
Mean (SD)	18.3 (15.0)
Median (IQR)	14.0 (6.0–24.0)
Duration of Bup-Nal use (mo)	
≤3	22 (46.8%)
>3	25 (53.2%)
Mean (SD)	6.7 (7.9)
Median (IQR)	4.0 (2.0–8.0)
Chronic cancer-related pain mechanism based on ECS-CP	
Neuropathic	6 (12.8%)
Nociceptive	38 (80.9%)
Other	3 (6.4%)

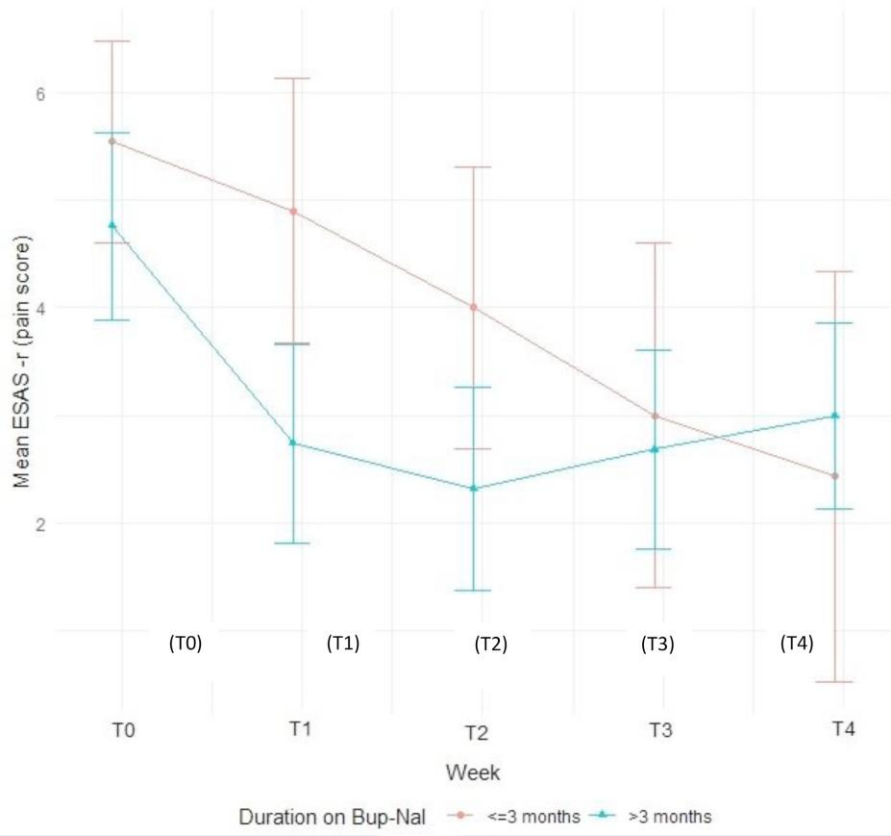
Characteristic	Total *n* (%)
Oral MEDD (mg) prior to Bup-Nal switch	
<100	23 (48.9%)
100–200	17 (36.2%)
201–300	4 (8.5%)
>300	3 (6.4%)
Mean (SD)	122.4 (98.8)
Median (IQR)	100.0 (54.0–165.0)
Sublingual buprenorphine daily dose (mg) at T1	
<2	15 (31.9%)
2–5	19 (40.4%)
6–10	4 (8.5%)
>10	9 (19.1%)
Mean (SD)	4.6 (4.9)
Median (IQR)	2.0 (1.0–6.5)
Oral MEDD: Sublingual buprenorphine dose ratio at T1	
Mean (SD)	39.4 (19.4)
Median (IQR)	35.8 (26.6–50.0)
Reasons for discontinuation of Bup-Nal	
Acute care admission	1 (2.1%)
Weaned off after gradual taper as pain well-controlled	3 (6.4%)
End of life	19 (40.4%)
Discontinued due to unsatisfactory pain management	8 (17.0%)
Inpatient palliative care unit admission	3 (6.4%)
Transfer to family physician/out of province	7 (14.9%)
Unknown	6 (12.8%)

Results

- 55 patients rotated to bup-nal
  - 8 patients removed from final analysis
  - 29/47 patients reached time point 4
- Longest duration for patient remaining on bup-nal was 40 months (mean 6.7 months)
- Oral MEDD ratio calculated to be 39.4 (mean) and 35.8 (median)

Results





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Conclusion and Limitations

Limitations

- Single institution
- Small sample size
- Retrospective review
- Subjective nature of pain control
- Chronic pain has an emotional and psychosocial component

Conclusion

- Buprenorphine/naloxone is an option for pain control in advanced cancer patients with chronic cancer related pain requiring long term opioid therapy

Questions and Discussion