2019
21-23 JUNE
SAN FRANCISCO
SUPPORTIVE CARE MAKES EXCELLENT CANCER CARE POSSIBLE

US Physician Concordance with Update to Guidelines Classifying Carboplatin AUC ≥ 4 as Highly Emetogenic Chemotherapy

RM Navari, KJ Ruddy, TW LeBlanc, R Clark-Snow, RJ Wickham, G Binder, T Coberly, R Potluri, LM Schmerold, EJ Roeland

MASCC/ISOO
Annual Meeting on Suppportive Care in Cancer
www.mascc.org/meeting
Follow us on Twitter: @CancerCareMASCC

MASCC Multinational Association of Supportive Care in Cancer
ISOO International Society of Oral Oncology
#MASCC19

Author disclosure

- Consultant for Helsinn and Heron Therapeutics. Research study funding from Heron Therapeutics

2019
21-23 JUNE
SAN FRANCISCO
SUPPORTIVE CARE MAKES EXCELLENT CANCER CARE POSSIBLE

Background & Objective

- MASCC, NCCN and ASCO antiemetic guidelines recently classified carboplatin AUC ≥4 as HEC
  - Recommend upfront triple prophylaxis
    - (NK1 receptor antagonist (RA) + 5HT3 RA + dexamethasone)

- NV among 10 toxicities deemed by CMS as "potentially avoidable acute care" and tracked in OP-35 measure[1]

- Objective: to assess
  - US physician concordance with the updated guidelines
  - consequences for avoidable post-chemotherapy acute care

2019
21-23 JUNE
SAN FRANCISCO
SUPPORTIVE CARE MAKES EXCELLENT CANCER CARE POSSIBLE

1. Federal Register Volume 81, Number 135 (Thursday, July 14, 2016)]

Methodology

- **Data source**: IBM Explorys electronic health records Oct. 2012 – Aug. 2018
  - Strengths
    - Current, detailed physician and patient longitudinal data
  - Limitations
    - Acute care may be underestimated (unavailable if occur at non-network sites)
    - Patient population is concentrated in the Midwest

- **Analysis:**
  - Evaluated carboplatin AUC >4 (using cycles >14 days), other chemo
  - Guideline concordance: triple prophylaxis at HEC initiation
  - Acute care (IP/ED) utilization <30 days post-chemo was compared by regimen
  - Avoidable acute care as defined by OP-35, CMS' new oncology outcome measure
    - Involving NV or any of eight other toxicities

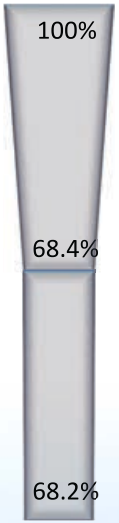
Patient flow chart

Chemotherapy administrations October 2012 – August 2018

N = 1,425,984

Chemotherapy courses (90 days washout)

Carboplatin	Other HECs	Oxaliplatin	Other non-HECs	HEC/MEC Oral
n = 16,938	n = 20,244	n = 5,729	n = 60,191	n = 2,111



Courses (excl. multi-day)* with ≥30 days data availability

Carboplatin	Other HECs	Oxaliplatin	Other non-HECs	HEC/MEC Oral
n = 11,587	n = 16,253	n = 4,877	n = 58,528	n = 2,068

Courses for patients age ≥ 18

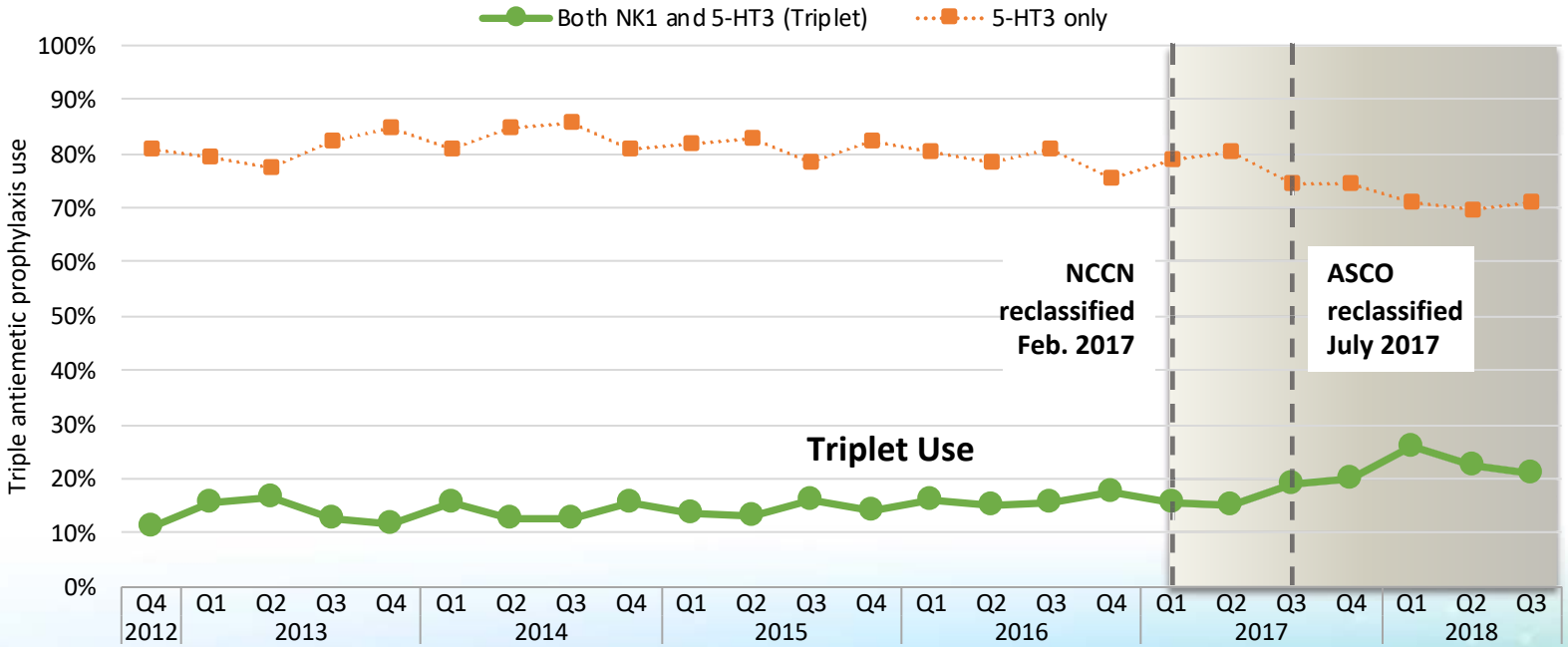
Carboplatin	Other HECs	Oxaliplatin	Other non-HECs	HEC/MEC Oral
n = 11,554	n = 16,025	n = 4,876	n = 57,556	n = 2,041

* ≥14-day cycles for carboplatin (as a proxy for AUC ≥ 4) and ≥7-day cycles for oxaliplatin and other HECs

Patient characteristics

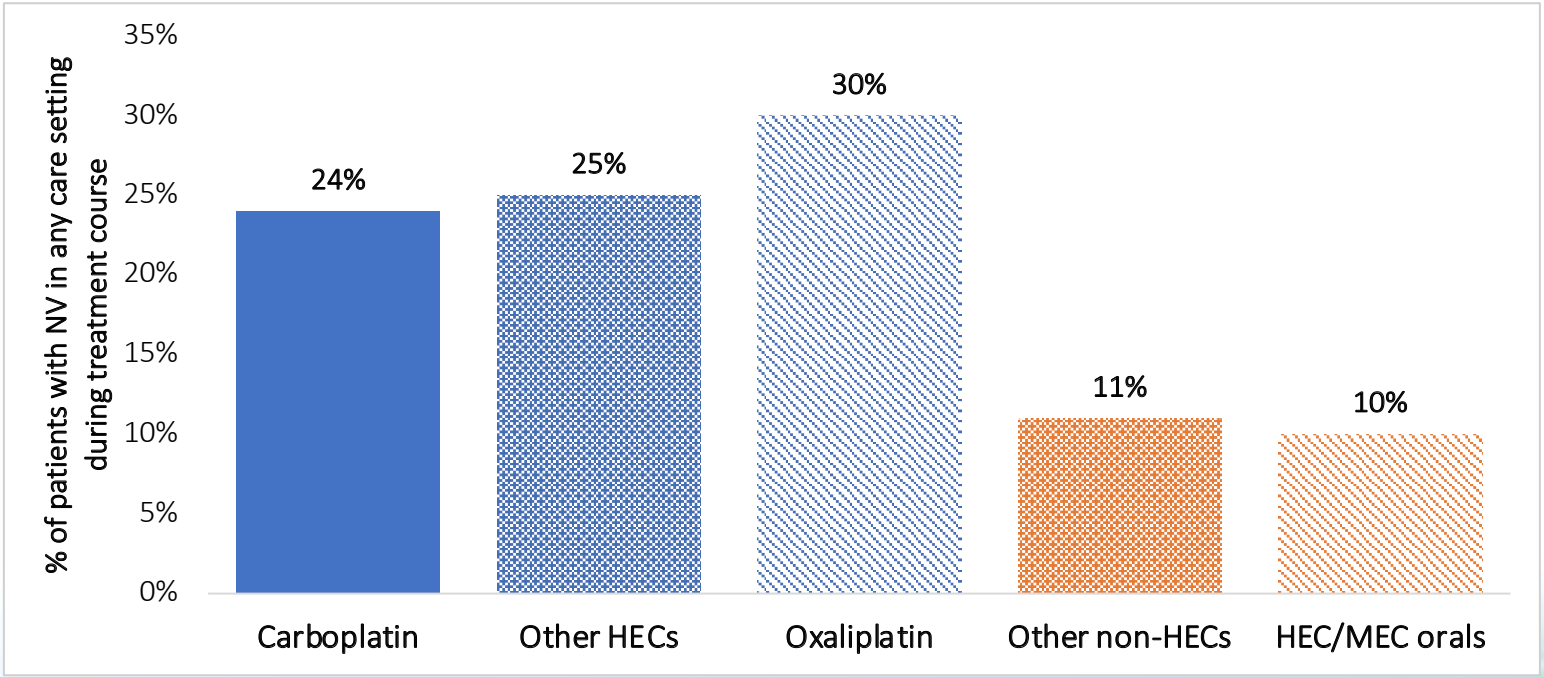
	Carboplatin	Other HECs	Oxaliplatin	Other non-HECs	HEC/MEC Oral
Age, Mean (SD)	64 (12)	60 (13)	62 (12)	63 (15)	60 (14)
Female, n (%)	8,125 (70%)	9,827 (61%)	2,096 (43%)	33,353 (58%)	1,099 (54%)
Region, n (%)					
Midwest	7,773 (67%)	9,933 (62%)	3,089 (63%)	34,502 (60%)	1,431 (70%)
South	2,087 (18%)	3,362 (21%)	973 (20%)	12,066 (21%)	283 (14%)
West	1,467 (13%)	2,397 (15%)	727 (15%)	9,435 (16%)	275 (13%)
Cancer type, n (%)					
Breast	2,032 (18%)	5,217 (33%)	93 (2%)	5,105 (9%)	131 (6%)
Lung	4,185 (36%)	1,615 (10%)	112 (2%)	3,703 (6%)	173 (8%)
GI	1,095 (9%)	2,009 (13%)	4,601 (94%)	7,045 (12%)	74 (4%)

Carboplatin triple antiemetic prophylaxis modestly increased after guideline change



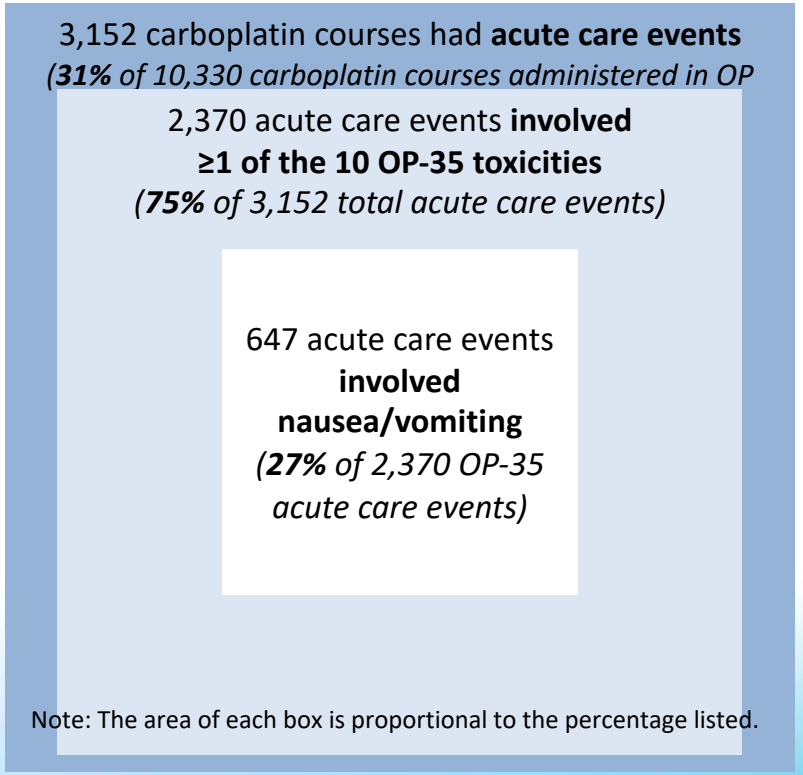
Note: Dexamethasone use occurred with virtually all patients in addition to the above-described prophylaxis.

Nausea/vomiting is more prevalent for Carboplatin and other HECs



2019
21-23 JUNE
SAN FRANCISCO
SUPPORTIVE CARE MAKES EXCELLENT CANCER CARE POSSIBLE

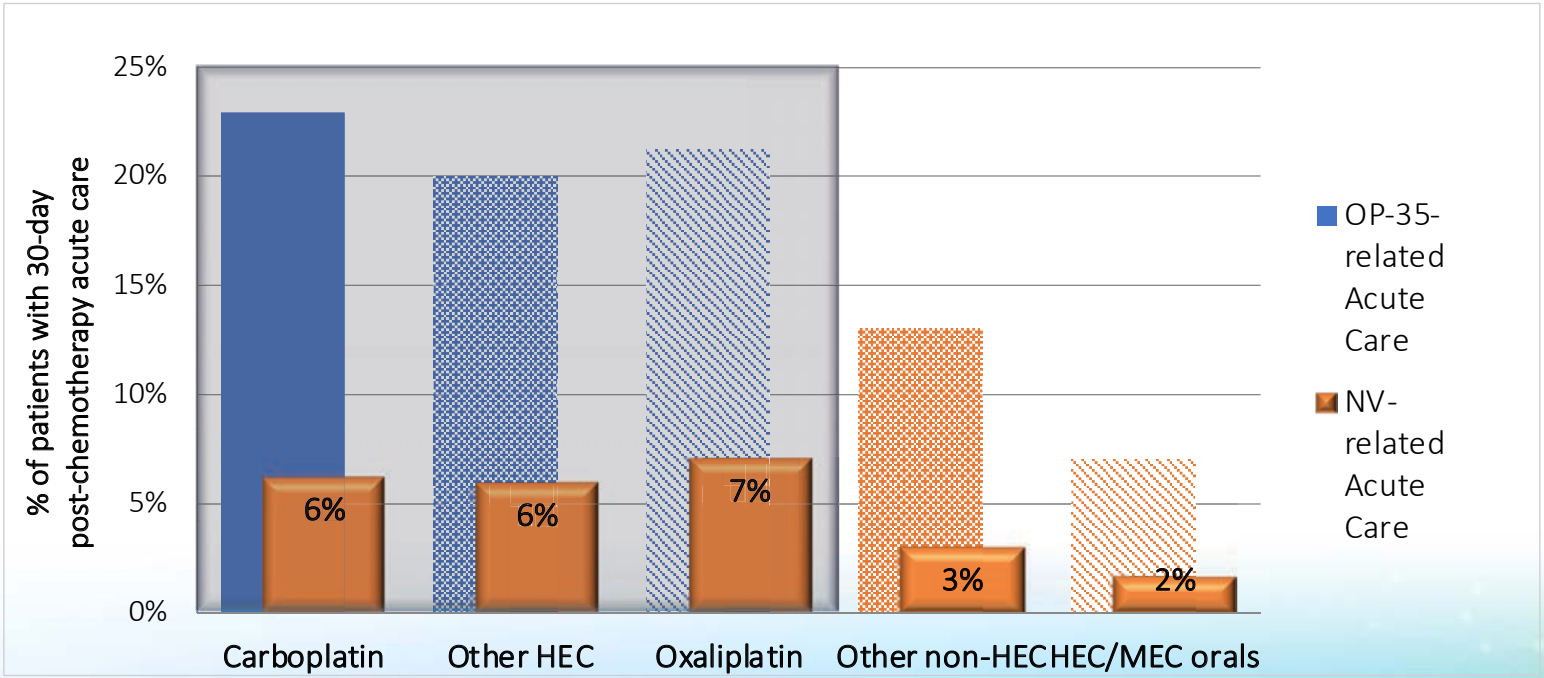
Nausea/Vomiting is common in post-carboplatin acute care



Note: The area of each box is proportional to the percentage listed.

2019
21-23 JUNE
SAN FRANCISCO
SUPPORTIVE CARE MAKES EXCELLENT CANCER CARE POSSIBLE

OP-35 toxicities and specifically NV are common avoidable causes of acute care for HEC and Oxali



Note: OP-35-related acute care refers to acute care events involving ≥1 of the 10 OP-35 toxicities (including NV) considered "potentially avoidable"

Conclusions

- US upfront triple antiemetic prophylaxis grew only marginally for carboplatin AUC ≥ 4 since re-classification as HEC, perhaps due to:
  - low awareness of the guideline changes
  - low awareness of the post-carbo acute care rate involving CINV
- NV and related 30-day acute care event rates for carboplatin matched those for other HEC, validating the HEC classification
- More upfront triple prophylaxis is needed to reduce NV and NV-related avoidable acute care with carboplatin AUC ≥ 4