Evolving Trends in Patient Demographics and Diagnosis in Gastric Cancer: A Real-World Analysis from US Community Oncology Practices from 2014 to 2024

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Background

- Gastric cancer (GC), though relatively rare, remains a clinical burden due to its diagnosis at advanced stages
- Understanding its evolving epidemiology is important for identifying at-risk populations and guiding targeted early detection strategies
- Recent clinical practice guideline updates from the National Comprehensive Cancer Network NCCN have included expanded recommendations for biomarker testing, updated treatment guidelines for metastatic disease, and the addition of immunotherapy to perioperative treatment for resectable disease
- As community oncology practices often serve highly heterogeneous patient populations, and in light of the recent updates to clinical practice guidelines, this study examined secular trends in GC over the past decade within the US community oncology setting

Objective

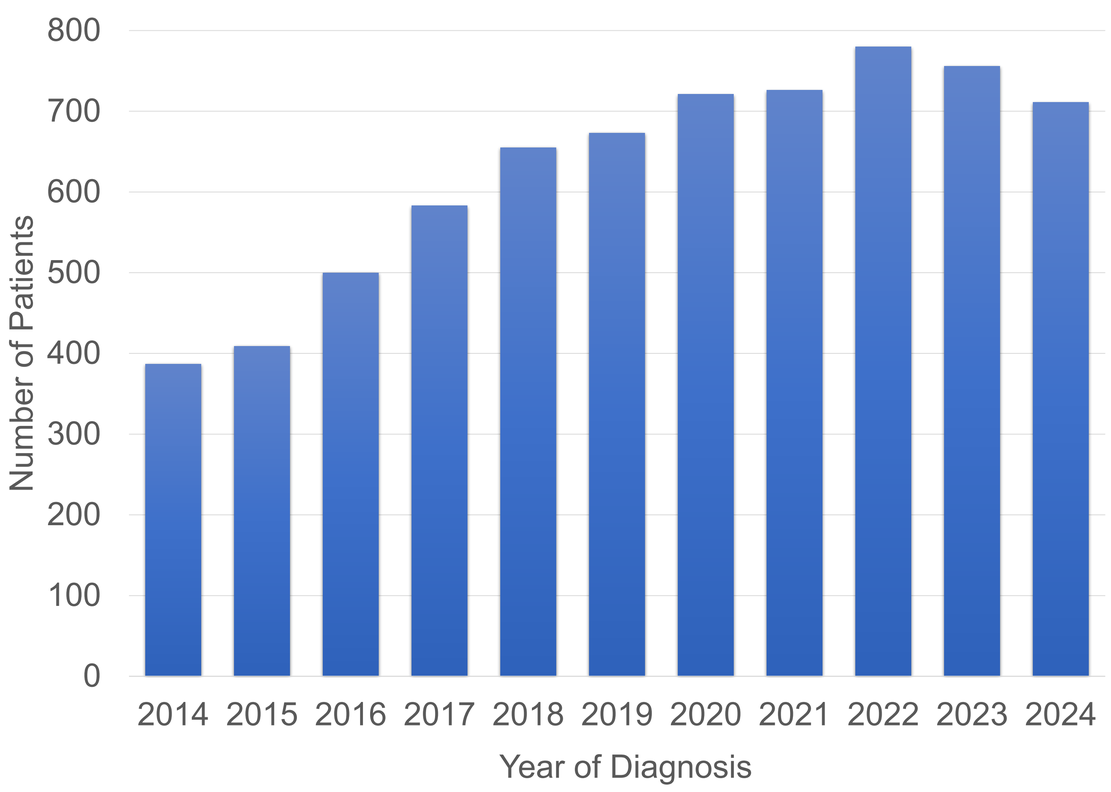
- To examine secular trends in GC over the past decade within the US community oncology setting.

Methods

- Patients were identified from The US Community Oncology Network and non-Network practices, a large network of US community oncology clinics with 2,700+ providers and >1 million patients seen annually
- All adults (≥18 years) diagnosed with GC with a documented stage between 2014 and 2024 were included
- Demographic and clinical data were extracted from structured fields in iKnowMed, an oncology-specific electronic health record system
- Descriptive analyses were performed to evaluate changes in patient characteristics over time

Results

Figure 1: New Cases of Gastric Cancer Diagnosed Between 2014 and 2024



- A total of 6,901 patients with GC were identified
- Between 2014 to 2024, the number of new GC cases diagnosed each year rose from 387 to 711 (Figure 1)
- While the sex distribution remained stable (~42% female), the proportion of patients identifying as Black, Asian, or other non-White races rose from 25.1% to 37.5%
- Stage IV diagnoses increased from 46.7% to 54.3%
- Mean age at diagnosis increased slightly overall, from 64.4 to 66.5 years, and across all race and gender subgroups
- Increased age at diagnosis was most pronounced among early-stage patients, with mean age rising from 65.3 to 70.0 years for Stage I patients, and from 65.8 to 67.1 years for Stage II patients, compared to 63.4 to 64.1 years for Stage IV patients

Table 1: Baseline Characteristics of Patients with Gastric Cancer (N=6,901)

Variable	Overall (N=6,901)	2014-16 (N=1,296)	2017-19 (N=1,911)	2020-22 (N=2,227)	2023-24 (N=1,467)
Mean Age (Standard Deviation)	65.8 (12.9)	64.4 (12.8)	65.6 (12.9)	66.2 (13.0)	66.5 (13.0)
Age Group					
18–24	10 (0.1%)	3 (0.2%)	3 (0.2%)	4 (0.2%)	0 (0.0%)
25–44	448 (6.5%)	90 (6.9%)	117 (6.1%)	137 (6.2%)	104 (7.1%)
45–64	2532 (36.7%)	522 (40.3%)	703 (36.8%)	818 (36.7%)	489 (33.3%)
65+	3911 (56.7%)	681 (52.5%)	1088 (56.9%)	1268 (56.9%)	874 (59.6%)
Race					
American Indian/Alaska Native	116 (1.7%)	24 (1.9%)	44 (2.3%)	30 (1.3%)	18 (1.2%)
Asian	484 (7.0%)	93 (7.2%)	126 (6.6%)	143 (6.4%)	122 (8.3%)
Black/African-American	735 (10.7%)	135 (10.4%)	235 (12.3%)	221 (9.9%)	144 (9.8%)
Native Hawaiian/Pacific Islander	19 (0.3%)	7 (0.5%)	4 (0.2%)	4 (0.2%)	4 (0.3%)
Other	265 (3.8%)	19 (1.5%)	57 (3.0%)	90 (4.0%)	99 (6.7%)
White	3516 (50.9%)	830 (64.0%)	1022 (53.5%)	1019 (45.8%)	645 (44.0%)
Unknown	1766 (25.6%)	188 (14.5%)	423 (22.1%)	720 (32.3%)	435 (29.7%)
Ethnicity					
Hispanic/Latino	1043 (15.1%)	229 (17.7%)	248 (13.0%)	325 (14.6%)	241 (16.4%)
Not Hispanic/Latino	4266 (61.8%)	866 (66.8%)	1228 (64.3%)	1282 (57.6%)	890 (60.7%)
Unknown	1592 (23.1%)	201 (15.5%)	435 (22.8%)	620 (27.8%)	336 (22.9%)
Stage at Diagnosis					
I	748 (10.8%)	160 (12.3%)	231 (12.1%)	218 (9.8%)	139 (9.5%)
II	1266 (18.3%)	270 (20.8%)	363 (19.0%)	371 (16.7%)	262 (17.9%)
III	1343 (19.5%)	261 (20.1%)	361 (18.9%)	451 (20.3%)	270 (18.4%)
IV	3544 (51.4%)	605 (46.7%)	956 (50.0%)	1187 (53.3%)	796 (54.3%)
ECOG Performance Status					
0	1444 (26.7%)	200 (19.8%)	425 (27.7%)	494 (28.8%)	325 (28.4%)
1	3085 (57.1%)	615 (60.8%)	847 (55.2%)	964 (56.3%)	659 (57.7%)
2	741 (13.7%)	174 (17.2%)	219 (14.3%)	214 (12.5%)	134 (11.7%)
≥3	130 (2.4%)	22 (2.2%)	43 (2.8%)	40 (2.3%)	25 (2.2%)
Unknown	2 (0.0%)	0 (0.0%)	1 (0.1%)	1 (0.1%)	0 (0.0%)
Body Mass Index Category					
Normal	2733 (40.2%)	528 (41.2%)	758 (40.3%)	860 (39.3%)	587 (40.6%)
Obese	1566 (23.0%)	290 (22.6%)	434 (23.0%)	502 (22.9%)	340 (23.5%)
Overweight	2131 (31.3%)	375 (29.3%)	599 (31.8%)	705 (32.2%)	452 (31.2%)
Underweight	371 (5.5%)	88 (6.9%)	92 (4.9%)	123 (5.6%)	68 (4.7%)
BRCA Mutation Status					
Not Detected	329 (4.8%)	18 (1.4%)	75 (3.9%)	161 (7.2%)	75 (5.1%)
Not Tested	6393 (92.6%)	1264 (97.5%)	1800 (94.2%)	2005 (90.0%)	1324 (90.3%)
Mutation	179 (2.6%)	14 (1.1%)	36 (1.9%)	61 (2.7%)	68 (4.6%)
Other HRR Mutation Status					
Not Detected	6555 (95.0%)	1272 (98.1%)	1842 (96.4%)	2109 (94.7%)	1332 (90.8%)
Mutation	346 (5.0%)	24 (1.9%)	69 (3.6%)	118 (5.3%)	135 (9.2%)

Conclusions

- Findings from this large-scale real-world study reflect increasing demographic diversity, an aging patient population, and a persistent burden of late-stage GC
- However, emerging shifts in stage at diagnosis among certain subgroups – particularly older adults – suggest that more routine screening in key populations may be facilitating earlier detection
- These trends underscore the need for improved targeted, risk-based screening strategies in diverse community oncology settings