Analyzing the impact of colorectal cancer diagnosis on treatment adherence among patients with preexisting hypertension

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INTRODUCTION

- A colorectal cancer (CRC) diagnosis at the index date in patients with preexisting hypertension can lead to the discontinuation of antihypertensive medication, which can result in an unfavorable outcome like stroke.
- To date, there is a lack of comprehensive studies investigating specific challenges faced by preexisting hypertension patients following a CRC diagnosis, exclusively focusing on the impact of this dual diagnosis treatment persistence and overall health outcomes

OBJECTIVE

- The aim of this study is to analyze the impact of colorectal cancer diagnosis on treatment adherence among patients with preexisting Hypertension

METHODS

Preliminary steps :

- Utilization of SEER-Medicare linked database to identify patients enrolled in Medicare Part A,B and D at the time of index date (2015-2019), who were 65 years of age or older on the index date with pre-existing hypertension conditions
- Antihypertensive medications used were beta blockers, Angiotensin Converting Enzymes (ACE) inhibitors, Angiotensin receptor blockers (ARB), calcium channel blockers and diuretics

Analysis of the outcomes :

- Change in adherence post CRC diagnosis
- Common drug classes on index date were determined

RESULTS

- Of 6758 patients, the largest proportion of CRC patients with pre-existing hypertension conditions were Males(56%) and Whites (82.2%), whose mean age was 77.6 years
- In comparison to post CRC diagnosis, 53.58% of participants had higher adherence, while 30.37% showed lower adherence
- At index date, the most common drug class for hypertension was beta blockers (16.22%), followed by ACE inhibitors (11.7%) and ARBs (7.1%) and following a CRC diagnosis.
- 55.5% of individuals who had previously used one class of anti-hypertensive medication switched to a different class.
- In time to event analysis, it was found that of 6758 patients, occurrence of CRC happened in 3765 patients and 2993 individuals did not experience the event within the study period.

CONCLUSION

- Change in adherence in terms of population characteristics was explained by sex, and race.
- The common use of drug class for hypertension was beta blockers
- Future research needs to explore survival analysis and treatment discontinuation

RESULTS

Table 1: Study characteristics

Characteristics	Number (%)
Median age, years (range)	**73, (65-100)**
Gender	
Male	**3786 (56)**
Female	**2972 (43.98)**
Age 65 and above	
Race/ethnicity	
White	**5553 (82.2)**
Black	**657(9.7)**
Others	**465 (6.9)**
Marital status	
Partnered	**2304 (34)**
Not partnered	**2259(33.4)**
Unknown	**2195 (32.4)**
Cancer stage	
I	**2960 (43.8)**
II	**1058 (15.7)**
III	**1597(23.6)**

Table 2 Change in adherence Post and Pre CRC

Change in adherence (N=47393)	Frequency	Percent (%)
-1 (Lower adherence)	**14394**	**30.4**
0	**7604**	**16**
1(Higher adherence)	**25395**	**53.6**

Table 3 Drug classes used on index date

S.NO	Drug classes	Percentage of use on index date (%)
1	**Beta blockers**	**16.2**
2	**Angiotensin converting enzymes inhibitors**	**11.7**
3	**Angiotensin receptor blockers**	**7.1**
4	**Calcium channel blockers**	**6.5**
5	**Diuretics**	**2.2**

RESULTS

Figure 1 Study Population Flowchart

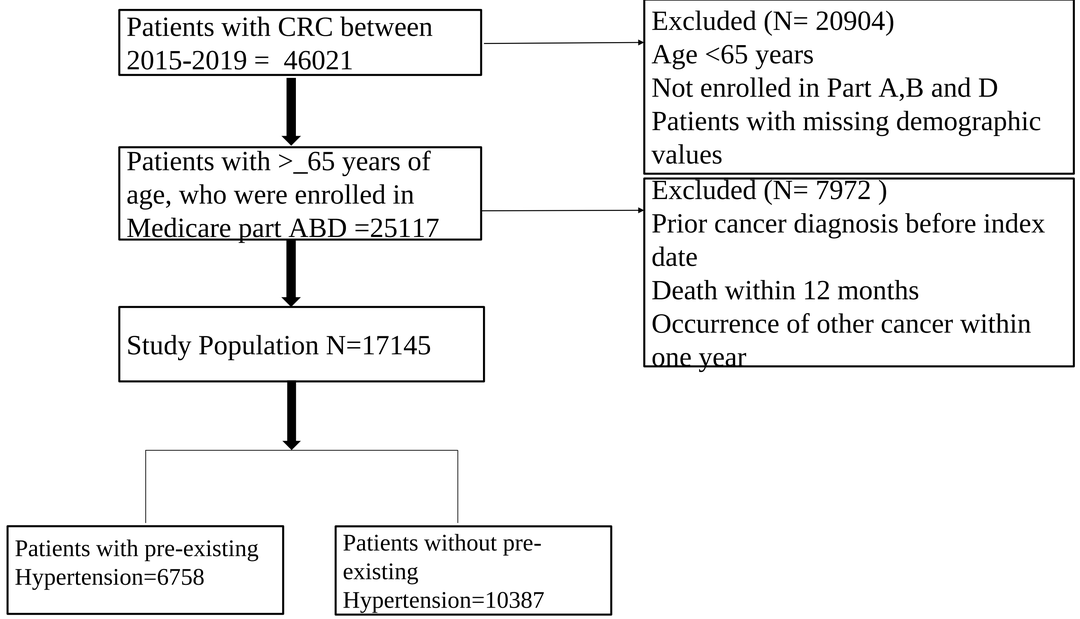

Table 4 Number of hypertension treatments used post CRC

Number of treatment post CRC	Frequency	Percent (%)
1	**2993**	**44.29**
2 or more treatments	**3765**	**55.7**

Table 5 Time to event analysis

Total number of observations	Occurrence of event	Censored
6758	**3765**	**2993**

REFERENCES

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