Mental and Behavioral Health Disorders (MBHD) Among Patients with Metastatic and Non-Metastatic Cancer: A Claims-Based Analysis

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INTRODUCTION

○ Cancer diagnosis and treatment often bring a substantial burden on patients, significantly diminishing their overall well-being and quality of life.
○ The mental component of this burden can present as mental and behavioral health disorders (MBHD) such as anxiety, depression, stress, substance abuse, and somatoform disorders[1].
○ MBHD in cancer patients are often linked to poorer treatment adherence, higher acute-care utilization, and worse survival[2-3].

OBJECTIVE

○ This study explores the prevalence of first-onset and recurrent MBHD in patients with metastatic vs non-metastatic cancers.

KEY RESULTS: PATIENTS WITH METASTATIC CANCER HAVE A HIGHER RISK OF FIRST-ONSET MBHD THAN THOSE WITH NON-METASTATIC DISEASE

RESULTS

○ Figure 1 shows Sankey diagrams of MBHD status changes from pre-diagnosis (Yes/No) to post-diagnosis (No, first-onset, new recurrent, existing recurrent) for non-metastatic and metastatic cancers by age group.
  ○ First-onset prevalence was higher in metastatic vs non-metastatic patients; 17.3% vs 10.6% in 50–64 age group and 14.4% vs 9.4% in 65+ age group.
  ○ Roughly 9% showed MBHD before cancer yet no MBHD claims afterward, consistent in both metastatic and non-metastatic cohorts and across both age groups.
○ Men had a higher percentage of first-onset MBHD than women in both age groups (Fig. 2).
○ Relative to pre-diagnosis, MBHD increased most in metastatic cancers, especially among younger adults, and changed minimally in older adults with non-metastatic disease (Fig. 3).
○ Anxiety was the most frequent MBHD (61%), followed by depression (48%), substance abuse (16%), stress (15%), and somatoform (1%).
○ First-onset risk was higher for metastatic vs non-metastatic cancers overall (RR 1.57; 95% CI 1.49–1.65) and across all cancer types, with magnitude varying by type (Fig. 4).
○ Any recurrent risk was similar for metastatic vs non-metastatic cancers overall (RR 1.00; 95% CI 0.98–1.03) with minimal variation by cancer type (Fig. 4).
○ The relative risk of first-onset MBHD was higher in men than women across both younger and older adults (Fig. 4).

Figure 1. Percent change in MBHD claims status from pre-diagnosis (No, Yes) to post-diagnosis (No, first-onset, new recurrent, existing recurrent) for metastatic vs non-metastatic cancers by age group
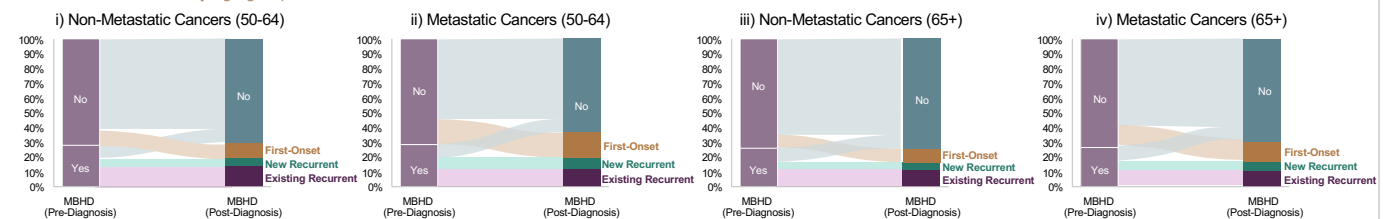

Figure 2. Percent of first-onset vs recurrent disorders in patients experiencing MBHD by age group and sex
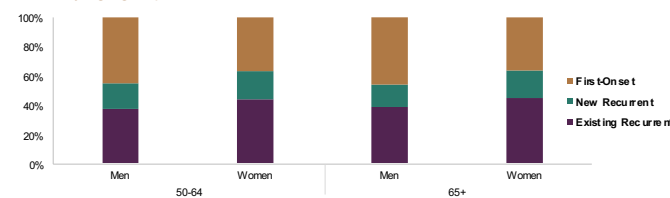

Figure 3. Percentage point change in MBHD after cancer diagnosis for patients with metastatic vs non-metastatic cancers by age group and sex
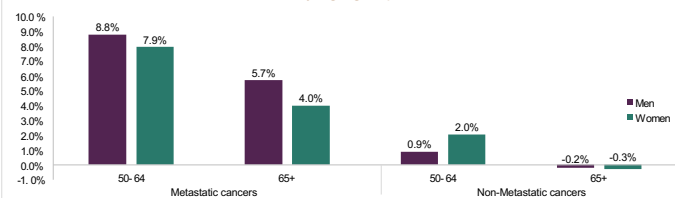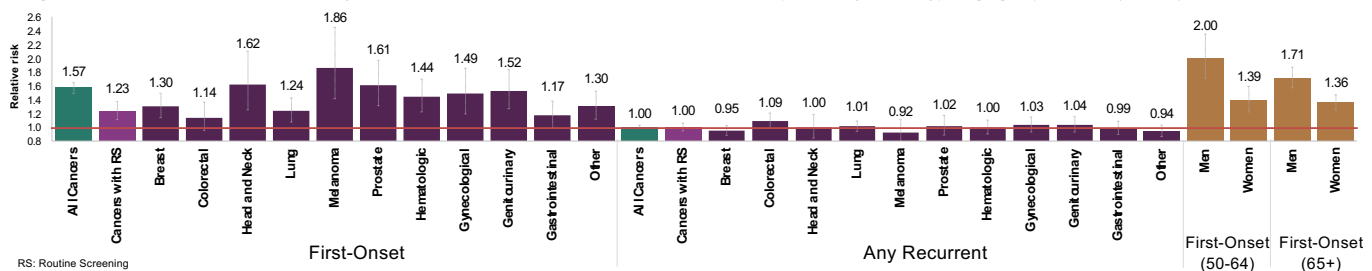

Figure 4. Relative risk of first-onset and any recurrent MBHD in metastatic vs non-metastatic cancer patients by cancer type, age group, and sex (95% CI)

CONCLUSIONS

○ The increased risk of first-onset MBHDs following metastatic cancer diagnoses relative to earlier diagnoses highlights the burden of late-stage cancer on quality of life.

LIMITATIONS

○ This analysis is limited to claims data in a single year and only explored five MBHD.
○ Full stage at diagnosis information was not available and metastatic status was inferred from the claims.

METHODS

○ A retrospective claims analysis was conducted using the IQVIA PharMetrics Plus dataset for patients newly diagnosed with metastatic and non-metastatic cancers in 2022.
  ○ Enrollees with cancer were identified using ICD-10-CM codes, requiring either one inpatient or two outpatient cancer claims at least 30 days apart.
  ○ Metastatic cancers were identified using the presence of either a claim for a secondary cancer or cancers at two anatomic locations at initial diagnosis.
  ○ Cancer was classified as a new incidence if there was no record of cancer in the preceding year.
○ This study only focused on five key cancer related MBHD: anxiety, depression, stress, substance abuse, and somatoform disorders.
  ○ ICD-10-CM codes: F10-F16; F18-F19; F32-F33; F40-F41; F43-45
○ We examined the prevalence of MBHD claims within six months following cancer diagnosis.

○ Our analysis distinguished between first-onset and recurrent MBHDs by reviewing claims data one year prior to cancer diagnosis.
  ○ **First Onset:** Diagnosis of MBHD in the follow-up period without any diagnosis of MBHD in the baseline period
  ○ **Any Recurrent:** Diagnosis of MBHD in both the follow-up and baseline periods
    ○ **New Recurrent:** Diagnosis of a specific MBHD in the follow-up period which was not present among any baseline MBHD
    ○ **Existing Recurrent:** Diagnosis of the same MBHD in both follow-up and baseline periods
○ Outcomes were stratified by cancer type, sex, and age group (50-64 and 65+ years).

References: **1.** Mitchell AJ, Chan M, Bhatti H et al. Prevalence of depression, anxiety, and adjustment disorder in oncological, haematological, and palliative-care settings: a meta-analysis of 94 interview-based studies. Lancet Oncol 2011; 12: 160–174. **2.** Mausbach BT, Irwin SA. Depression and healthcare service utilization in patients with cancer. Psycho-Oncology. 2017. **3.** Zhu J, Fang F, Sjölander A, Fall K, Adami H-O, Valdimarsdóttir U. First-onset mental disorders after cancer diagnosis and cancer-specific mortality: a nationwide cohort study. Ann Oncol. 2017;28(8):1964–1969.