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OSTEOPATHIC MEDICINE

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Behavioral health comorbidities in hospital outcomes post-lower extremity amputation in patients with diabetes

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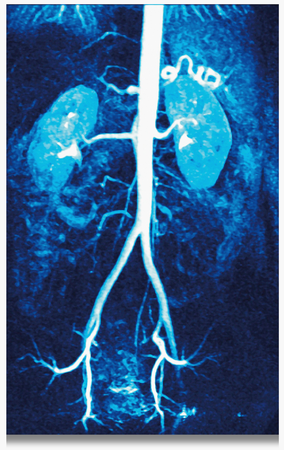
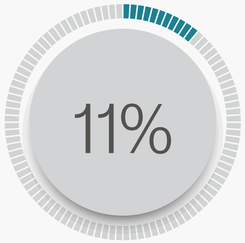
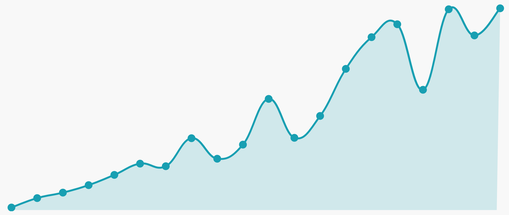
1. BACKGROUND





11% of patients with diabetes develop chronic limb threatening ischemia (CLTI) as a result of peripheral artery disease [1]



Since 2015, there is a rise in diabetes-related lower-extremity amputation (LEA) in young- to middle-aged males with a concurrent rise in major depressive disorder and illicit substance abuse [2,3]

Patients with diabetes and comorbid depressive disorder exhibit poorer self-care, especially related to diabetic foot ulcer care, with little to no attention given to other comorbid behavioral health conditions (CBHC) [4,5]

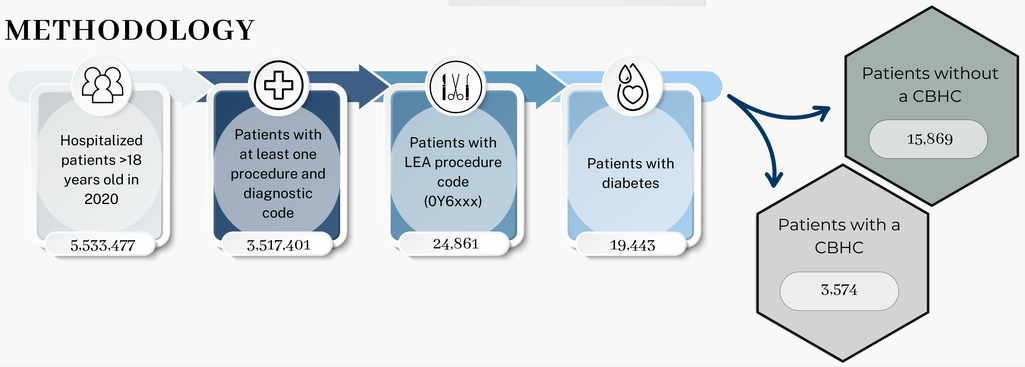
2. OBJECTIVE

Identify trends in hospital outcomes post-LEA in patients with CBHCs relative to patients without a CBHC

Comorbidity List

- Depression only
- Alcohol abuse only
- Drug abuse only
- More than one CBHC

METHODOLOGY



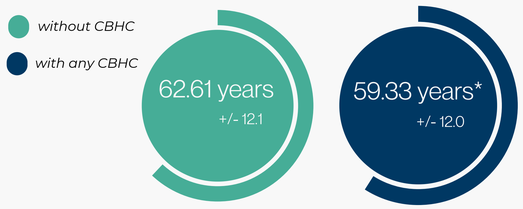
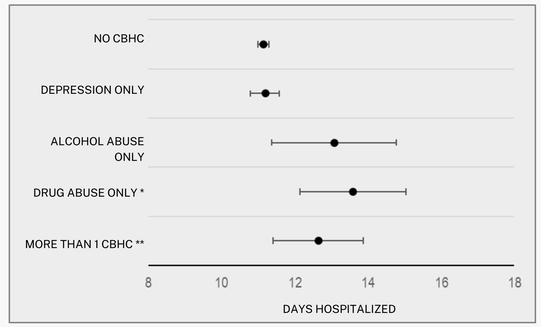


Figure 1. Mean age of admission was significantly lower in patients with at least one CBHC (59.33 years) relative to patients without a CBHC (62.61 years), U = 24,117,398, z=-13.993, p < .005

	PATIENT SURVIVAL (N, %)	PATIENT DEATH (N, %)
NO CBHC	15,433 (97.3)[a]	430 (2.7)[a]
DEPRESSION ONLY	2,306 (98.5) [b]	34 (1.5) [b]
ALCOHOL ABUSE ONLY	339 (97.1)	10 (2.9)
DRUG ABUSE ONLY	574 (98.5)	9 (1.5)
MORE THAN 1 CBHC	298 (99.3)	2 (0.7)

Table 1. The highest proportion of deaths across all groups occurred in patients with alcohol abuse only (2.9%). There is a significant difference between the five independent binomial proportions (p<.001) where 98.5% of patients with depression only survived versus only 97.3% of patients without a CBHC (p<.001)

Figure 2. Post hoc analysis revealed a significant difference in length of hospital stay between patients without a CBHC (11.14 days, 95% CI 10.99-11.30), those with drug abuse only (13.59 days, 95% CI 12.14-15.04, p=.005), and patients with more than one CBHC (12.65 days, 95% CI 11.41-13.88, p=.048).



3. KEY FINDINGS

No overarching adverse outcomes post-LEA for patients with a CBHC

Patients suffering from drug abuse or more than one CBHC spent an average of 2-3 more days in hospital

Patients with depression only tended to mirror patients without a CBHC with higher survival rates

Findings underscore urgency for holistic patient care with acknowledgement of mental health conditions in healing

4. CONCLUSIONS

The American Diabetes Association's (ADA) most recent Position Statement on Psychosocial Care for People With Diabetes recommends that medical providers screen for signs of distress, anxiety, depression, disorganized eating, and cognitive capabilities in patients at their initial visit and periodically thereafter, to include significant changes in life or disease development. [6]

This statement fails to account for psychosocial screening related to substance abuse, which has the most deleterious hospital outcomes post-LEA according to the data presented here. Further, patients with diabetes may experience prolonged or dysfunctional DFU healing due to impairment of the inflammatory or proliferative phases of healing.[7] Because these phases generally occur between days one to 21 after wound development, [8] the proposed ADA guideline of periodic psychosocial screening is plainly insufficient.

RELATED LITERATURE

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