

Background

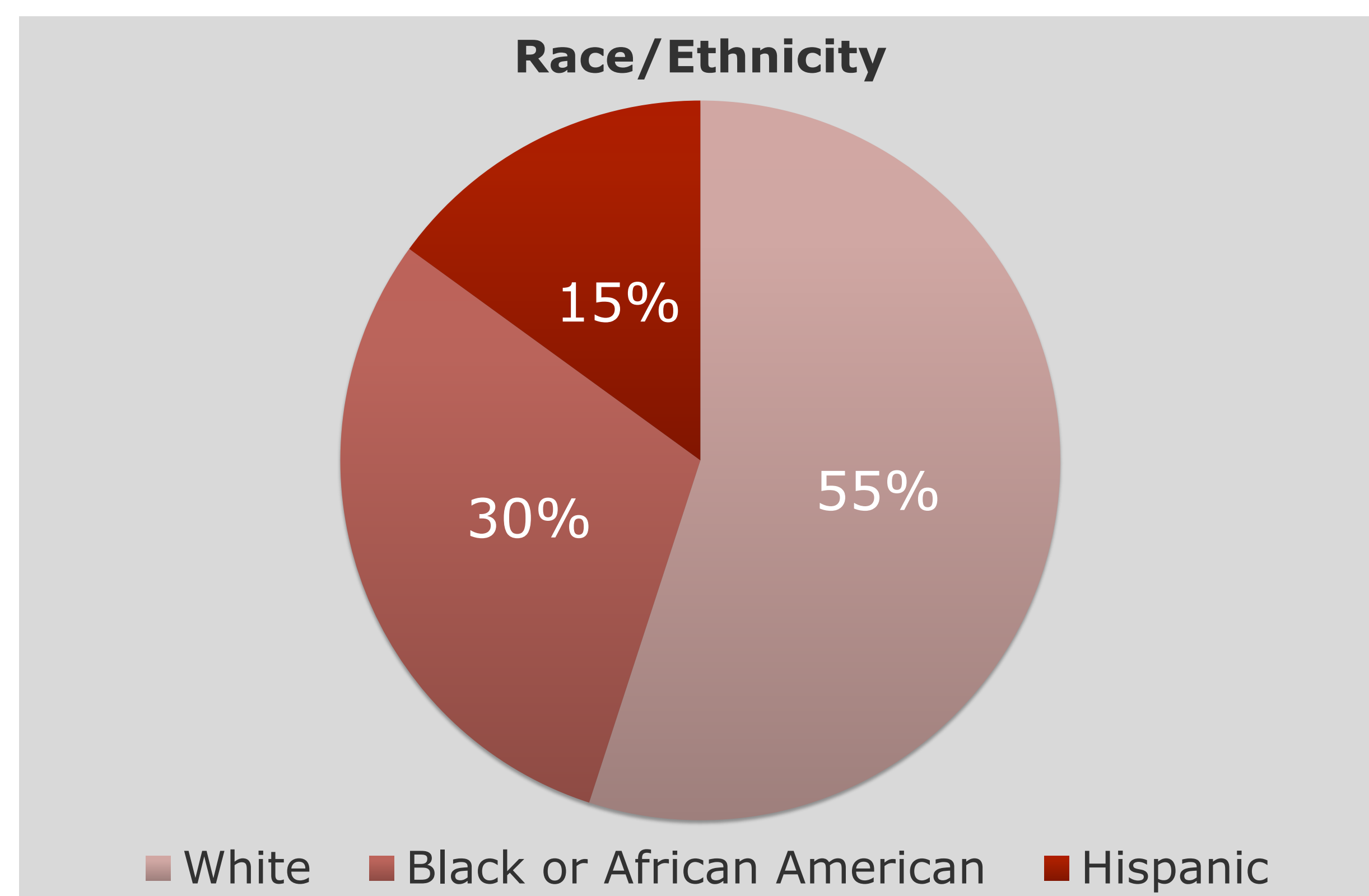
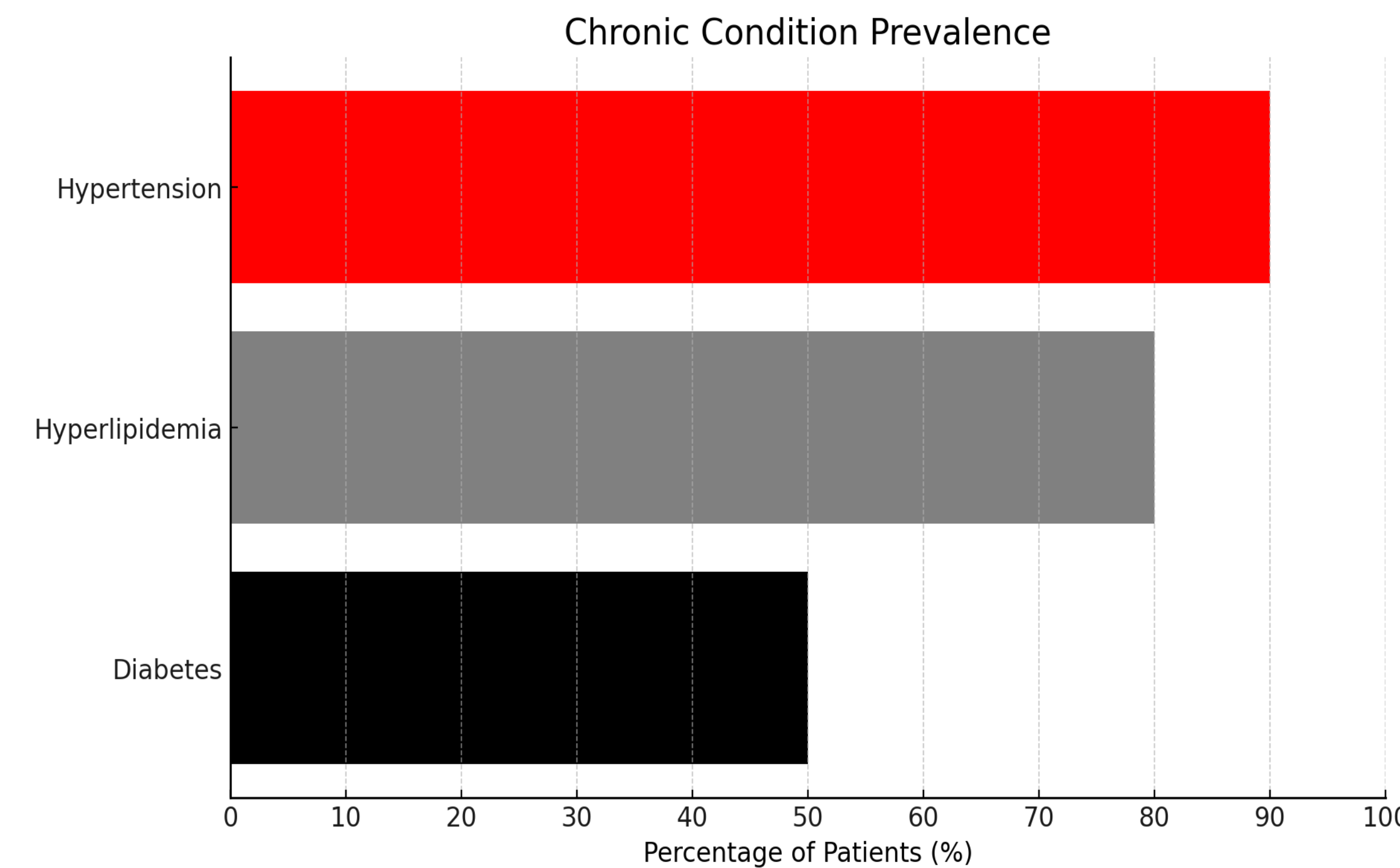
- Medication adherence is critical for chronic disease management.
- Incarcerated individuals face unique challenges with adherence, especially for Keep on Person (KOP) medications.
- IDOC uses paper charting, complicating adherence monitoring and timely interventions.
- Study Aim: Assess relationship between KOP medication adherence and achievement of clinical goals in deceased incarcerated individuals with diabetes, hypertension, and hyperlipidemia.

Methods

- Study Design: Retrospective chart review of deceased incarcerated patients (Feb 2023–Apr 2024).
- Data Collected:
 - Demographics, diagnoses, lab values, blood pressure, days from last clinic visit
 - Medication adherence via Proportion of Days Covered (PDC $\geq 80\%$)
- Clinical Goals:
 - Diabetes: A1C $< 7\%$
 - Hypertension: Blood pressure $< 130/80$ mmHg
 - Hyperlipidemia: LDL < 100 mg/dL
- Statistical Analysis:
 - Fisher's Exact Test
- Secondary Outcome:
 - Rate of overdue chronic care visits.

Inclusion Criteria	Exclusion Criteria
Age 18–89 years	Age ≥ 90 years
Incarcerated at time of death	Incarcerated < 12 months
Receiving KOP medications	Diagnosis of malignancy
Diagnosis of diabetes, hypertension, or hyperlipidemia	Cause of death: overdose or homicide
Death after February 1, 2023	No evidence of chronic clinic visit

Results



Primary Outcomes

	Diabetes (n)	Hypertension (n)	Hyperlipidemia (n)
Adherent & Within Goal	1	4	3
Adherent & Not Within Goal	3	4	4
Not Adherent & Within Goal	0	3	4
Not Adherent & Not Within Goal	6	7	5
Total	10	18	16

Appointment Status & Adherence

	Diabetes (n)	Hypertension (n)	Hyperlipidemia (n)
Adherent & Overdue	2	3	2
Adherent & Not Overdue	2	5	5
Not Adherent & Overdue	3	7	6
Not Adherent & Not Overdue	3	3	3
P-value	1.000	0.342	0.315

Outcomes

- Sample: 20 deceased patients, all male (mean age 61.9 years)
- Medication adherence was achieved by 40% of patients but did not show a statistically significant association with clinical goal attainment across any of the three conditions ($p > 0.05$)
- 50% of patients were overdue for a chronic clinic visit at the time of death (mean 263.1 days from last visit to death)
- Only 10% of patients with diabetes, 38.9% with hypertension, and 43.8% with hyperlipidemia achieved their respective clinical goals
- 3 patients had prediabetes; 3 eligible for statins but untreated

Limitations

- Small sample size provided limited statistical power
- All-male cohort; no female data included
- Protocol change mid-study affected original design
- Inconsistent documentation across IDOC facilities (paper MARs, illegible notes)
- Adherence measurement may overestimate actual patient adherence
- Unrecorded cause of death beyond major exclusions (malignancy, overdose, homicide)
- Limited data on lifestyle factors (diet, smoking, alcohol use) and full medical history

Conclusion

In this retrospective review of male incarcerated patients with Keep on Person (KOP) medication privileges, we observed that medication adherence was generally poor, and many patients failed to meet clinical goals for diabetes, hypertension, or hyperlipidemia at their last clinic visit. These findings highlight systemic barriers, including manual records, insufficient staffing, and fragmented chronic disease management within the IDOC. Development of an EHR, increasing pharmacist involvement, and standardizing chronic care protocols may improve outcomes.

References

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