Development of a Hepatopancreatobiliary Surgery Tertiary Referral Center within the Veterans Affairs Medical System: Early Experiences

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INTRODUCTION

Treatment of complex hepatopancreatobiliary (HPB) diseases in high-volume institutions has shown benefit for patient experiences and outcomes. Consolidation of resources and specialized personnel allows for development of specialty-specific tumor conferences, multidisciplinary clinics (MDC), and protocolization of care which can result in quicker treatment and improved patient satisfaction and outcomes. This study reports the early experiences after institution of multidisciplinary medical and surgical care within a Veterans Affairs medical system.

METHODS

In August 2014, an HPB referral center was established at the Kansas City Veterans Affairs Medical Center (KCVAMC), providing care to patients residing in Eastern Kansas and Western Missouri within Veterans Integrated Service Network (VISN) 15 (Fig 1). Retrospective review was performed to analyze consultations, referrals, and surgical volumes during the two years prior to development (Aug 2012-Aug 2014) and the two years after development (Aug 2014-Aug 2016) of the referral center. Patient experiences were surveyed to determine satisfaction with liver MDC in February 2016.


Fig 1. VISN regions.

RESULTS

Between August 1, 2014 and August 1, 2016, 175 patients were referred for HPB surgical consultation compared to 30 patients seen in the previous two years, a 483% increase. The number of referrals increased by 30.6% during the second year of development in comparison to first (Fig 2). Surgical intervention occurred in 47.4% of these patients overall. 15% of patients were referrals from VA hospitals within VISN 15. After the February 2016 creation of a liver MDC, 37 unique patients were seen in 61 clinic visits compared to 16 patients seen in a traditional surgical consultation format (Fig 3). There was no statistically significant difference in time to first intervention after diagnosis. When surveyed, 86.4% of patients reported satisfaction with seeing multiple clinicians in one visit and 70.3% were satisfied with time spent in consultation (Fig 4).


Fig 2. HPB Consults: Pre and Post HPB Referral Center Creation
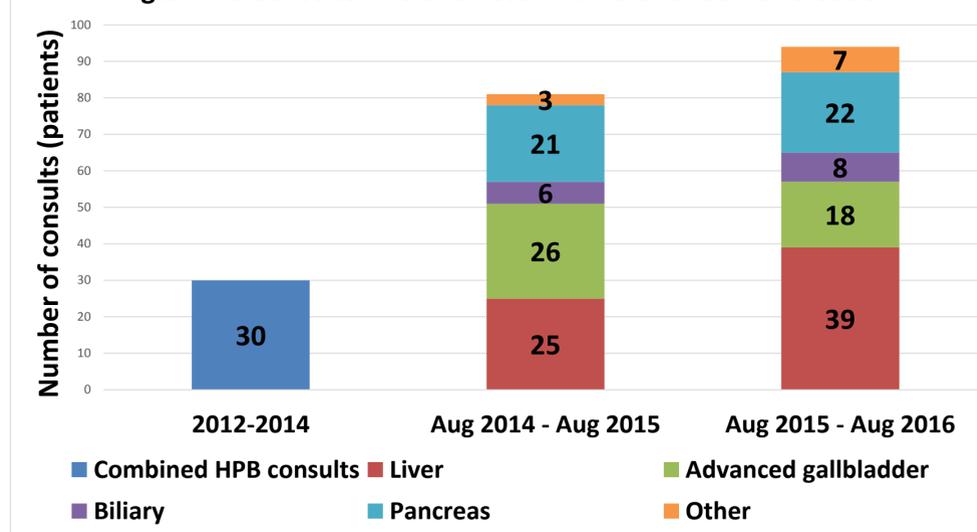
	Hepatocellular carcinoma	Cholangiocarcinoma	Non-cancerous hepatic conditions	Time to intervention after diagnosis (months)
Pre-MDC	8	1	2	1.78
Post-MDC	28	4	5	1.67
% change	250%	300%	150%	P=0.84

Fig 3. Conditions treated and time to intervention pre- and post-MDC creation.

Fig 4. Patient satisfaction with MDC model
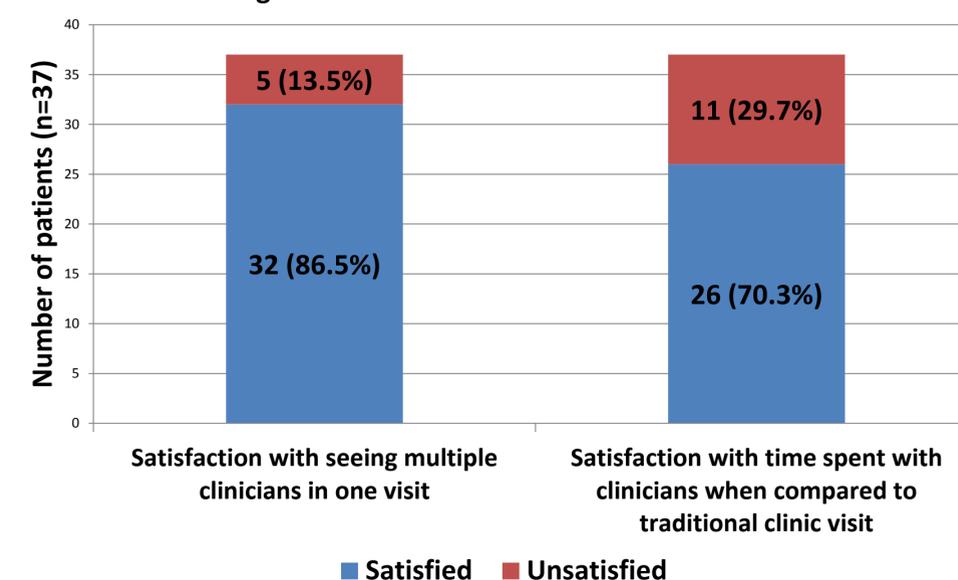
CONCLUSION

The development of an HPB referral center within a Veterans Affairs Medical system is feasible. This pilot study demonstrates the relative increases in patient volumes, treatments, and patient satisfaction after development of a referral center and MDC clinic. The small number of patients treated and lack of long-term outcomes makes interpretation of clinical outcomes difficult. Further study is needed to identify differences in clinical outcomes, morbidity and mortality, and cost savings incurred after the consolidation of care in a referral center and MDC model.

CREDITS/DISCLOSURE/REFERENCES

1. Katz MHG, Huamin W, Fleming JB, et al. Long-term survival after multidisciplinary management of resected pancreatic adenocarcinoma. Ann Surg Oncol 2009; 16:836-47.
2. Pawlik TM, Laheru D, Hruban RH, et al. Evaluating the impact of a single-day multidisciplinary clinic on the management of pancreatic cancer. Ann Surg Oncol 2008; 15:2081-88.
3. Sanjeevi S, Ivanics T, Lundell L, et al. Impact of the delay between imaging and treatment in patients with potentially curable pancreatic cancer. Br J Surg 2015;103:267-275.
4. Sugerman DT. Centers of Excellence. JAMA 2013; 310:994.