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HEALTH SERVICES RESEARCH

“What Matters” to an Outpatient Antimicrobial Therapy patient: redefining health care

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Introduction

- Administration of antibiotics in the patient’s own home is a useful treatment modality that allows patients to receive treatment within the comfort of their home. There has been limited examination of the psychological factors that concern patients undergoing treatment via either Hospital-In-The-Hospital (HITH) or OPAT programs. Thus, preventing any evidence-based attempt into optimizing treatment in the community based settings.

Aims

- describe the psychological concerns of patients in this setting prior entering the HITH or OPAT program.

Results

- Two main themes “mattered” on discharge to the home setting on the OPAT/HITH programs

    1) **Social Implications of Physical Deterioration**

    2) **Physical Health**

- The most common concerns reported by patients were:

    - Loss of Independence
    - Loss/Lack of Social support network
    - Fear of being a burden
    - General uncertainty/confusion
    - Lack of understanding of the OPAT/HITH program
    - Anxiety regarding Self-Administration

Methodology

- descriptive qualitative prospective study where we conducted semi-structured interviews with OPAT patients *(n=11)* during a 4-month period, transcribed the interviews, extracted codes, and performed a thematic analysis of the transcribed material.

Study Population

- Greater than 18 years of age
- Admitted to OPAT/HITH
- Undergoing Antibiotic Treatment for at least 1 week

Study Limitations

- Small patient population
- Lack of input from paediatric populations
- Exclusion of repeating OPAT/HITH patients
- Potential cultural bias due to exclusion of non-English speakers.

Figure 2: Codes and Themes

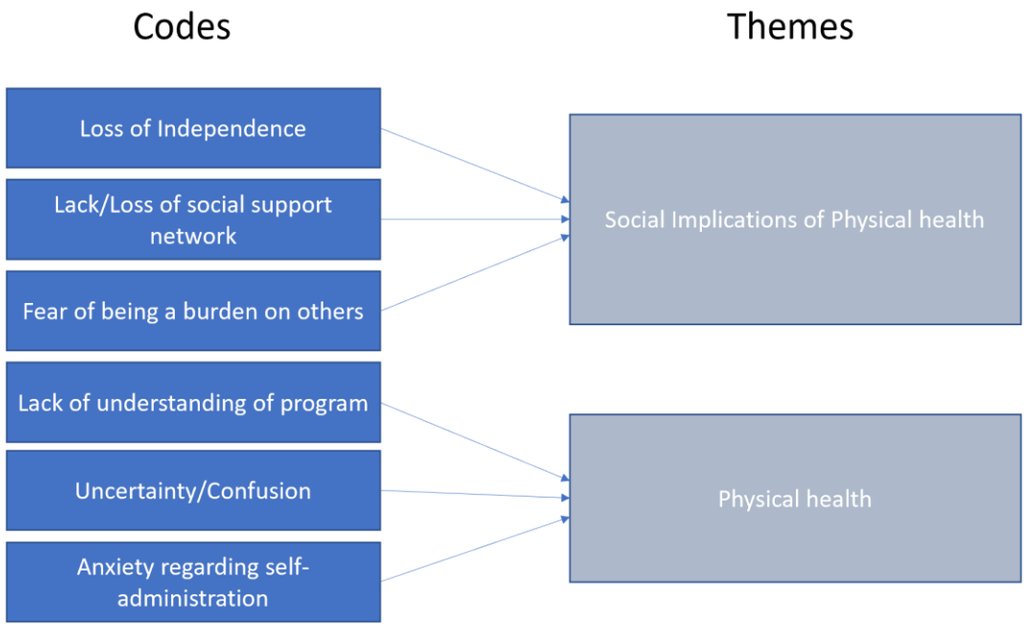
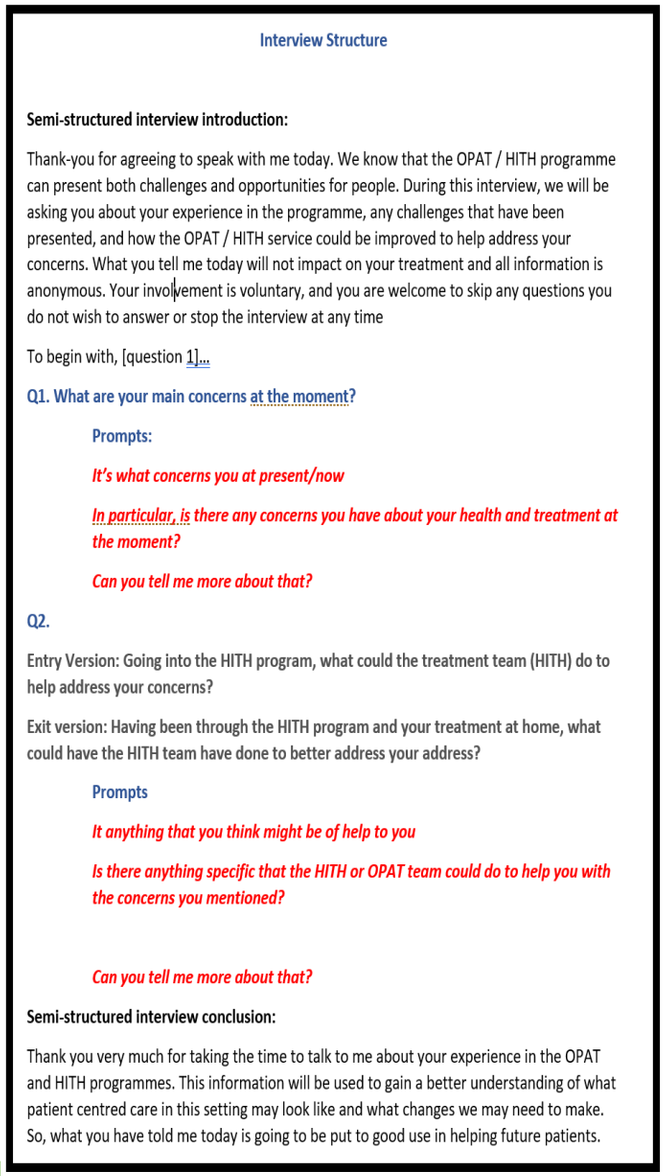


Figure 1: Interview Sample



Interview Structure

Semi-structured interview introduction:

Thank-you for agreeing to speak with me today. We know that the OPAT / HITH programme can present both challenges and opportunities for people. During this interview, we will be asking you about your experience in the programme, any challenges that have been presented, and how the OPAT / HITH service could be improved to help address your concerns. What you tell me today will not impact on your treatment and all information is anonymous. Your involvement is voluntary, and you are welcome to skip any questions you do not wish to answer or stop the interview at any time

To begin with, [question 1]...

Q1. What are your main concerns at the moment?

Prompts:

It’s what concerns you at present/now

In particular, is there any concerns you have about your health and treatment at the moment?

Can you tell me more about that?

Q2.

Entry Version: Going into the HITH program, what could the treatment team (HITH) do to help address your concerns?

Exit version: Having been through the HITH program and your treatment at home, what could have the HITH team have done to better address your address?

Prompts

It anything that you think might be of help to you

Is there anything specific that the HITH or OPAT team could do to help you with the concerns you mentioned?

Can you tell me more about that?

Semi-structured interview conclusion:

Thank you very much for taking the time to talk to me about your experience in the OPAT and HITH programmes. This information will be used to gain a better understanding of what patient centred care in this setting may look like and what changes we may need to make. So, what you have told me today is going to be put to good use in helping future patients.

ICD-10-AM codes for cirrhosis and related complications: key performance considerations for population and healthcare studies

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Introduction

- The utility of International Classification of Diseases (ICD) codes for Health Department reporting and epidemiological research relies on the accuracy of clinical documentation and administrative coding.
- This study of the Australian Modification of the 10th revision of ICD (ICD-10-AM) explores the accuracy and limitations of individual and grouped ICD-10-AM codes to detect the presence of cirrhosis and key complications.

Methods

- ICD-10-AM codes in a random sample of 540 admitted patient encounters at a major Australian tertiary hospital were compared with data abstracted from patient's medical records by four blinded clinicians.
- All public and private hospital admission data was obtained from the Queensland Hospital Admitted Patient Data Collection registry (QHAPDC) between 1st July 2007 and 31st December 2016 for every patient who had at least one encounter during this time frame that contained an ICD-10-AM code for cirrhosis or related complications.
- Accuracy of individual codes and grouped combinations was determined by calculating sensitivity, positive predictive value (PPV), negative predictive value (NPV) and Cohen's kappa coefficient (κ).

Definitions

		Disease / condition (on medical record review)	
		Present (+)	Absent (-)
Test (ICD-10-AM code)	Code present (+)	True Positive	False Positive
	Code absent (-)	False Negative	True Negative

Measure	Calculation
Sensitivity *Proportion of patients who have cirrhosis (or a complication) correctly identified by ICD-10-AM codes*	True positive / (true positive + false negative)
PPV *Proportion of encounters with ICD-10-AM code(s) that correctly identify patients with cirrhosis (or a complication)*	True positive / (true positive + false positive)
NPV *Proportion of encounters without ICD-10-AM code(s) the correctly identify patients without cirrhosis (or a complication)*	True negative / (true negative + false negative)

Results

- The PPVs for 'grouped cirrhosis' codes (0.96), HCC (0.97), ascites (0.97) and 'grouped varices' (0.95) were good (κ all >0.60); Table 1.
- Overall accuracy was lower for spontaneous bacterial peritonitis ('grouped' PPV 0.75; κ 0.73) and poorest for encephalopathy ('grouped' PPV 0.55; κ 0.21)
- Codes under-detected the prevalence of cirrhosis, ascites and varices (sensitivity 81.4%, 61.9% and 61.3% respectively).
- To optimize detection of cirrhosis related encounters, an ICD-10-AM code algorithm was constructed (Table 2) and validated in an independent cohort of 116 patients with cirrhosis ('validation cohort'); Figure 1.

Discussion

- Our data demonstrate the importance of using multiple ICD-10-AM codes to study the burden of cirrhosis in Australia, to avoid underestimation of prevalence, morbidity, mortality and resource utilisation.
- We recommend adoption of specific codes for hepatic encephalopathy and spontaneous bacterial peritonitis, and improved clinician training about accurate clinical documentation.
- For more information, the full paper is available at: https://bmjopengastro.bmj.com/content/7/1/e000485.long

Results

Table 1. Concordance between select ICD-10-AM codes for cirrhosis or cirrhosis related complications and medical chart review

ICD-10-AM code			n with condition on clinical review	n with code†	PPV (95% CI)	NPV (95% CI)	Kappa
Cirrhosis			413				
K70.3 *Alcoholic cirrhosis of liver*				193	0.97 (0.95-0.99)	0.35 (0.30-0.40)	
K74.4 *Secondary biliary cirrhosis**				12	1.00	0.24 (0.21-0.28)	
K74.5 *Biliary cirrhosis, unspecified*				6	0.67 (0.28-0.94)	0.23 (0.20-0.27)	
K74.6 *Other and unspecified cirrhosis of liver*				169	0.96 (0.93-0.99)	0.33 (0.28-0.38)	
Grouped K70.3, K74.4, K74.5, K74.6 (algorithm #1)				349	0.96 (0.94-0.98)	0.60 (0.53-0.67)	0.606
Cirrhosis-related complications							
HCC	C22.0	*Liver cell carcinoma*	82	74	0.97 (0.92-1.00)	0.98 (0.96-0.99)	0.910
Ascites	R18	*Ascites*	244	155	0.97 (0.94-0.99)	0.76 (0.71-0.80)	0.625
Varices	*Grouped varices (I85.0, I85.9, I86.4, I98.2, I98.3)*		243	157	0.95 (0.91-0.98)	0.76 (0.71-0.80)	0.606
	I85.0	*Oesophageal varices with bleeding*		27	1.00	0.58 (0.54-0.62)	
	I85.9	*Oesophageal varices without bleeding*		32	0.88 (0.73-0.96)	0.58 (0.53-0.62)	
	I86.4	*Gastric varices*		41	0.93 (0.82-0.98)	0.59 (0.55-0.63)	
	I98.2	*Oesophageal varices without bleeding in diseases classified elsewhere*		52	0.94 (0.86-0.99)	0.60 (0.56-0.65)	
	I98.3	*Oesophageal varices with bleeding in diseases classified elsewhere*		43	1.00	0.60 (0.55-0.64)	
SBP	*Grouped SBP (K65.0, K65.9)*		46	47	0.75 (0.61-0.85)	0.98 (0.96-0.99)	0.729
	K65.0	*Acute peritonitis*		24	0.63 (0.43-0.80)	0.94 (0.92-0.96)	
	K65.9	*Peritonitis, unspecified*		23	0.87 (0.70-0.97)	0.95 (0.93-0.97)	
HE	*Grouped HE (G31.2, G93.4)*		142	64	0.55 (0.43-0.67)	0.78 (0.74-0.81)	0.211
	G31.2	*Degeneration of nervous system due to alcohol*		30	0.37 (0.21-0.55)	0.74 (0.70-0.78)	
	G93.4	*Encephalopathy, unspecified*		34	0.71 (0.54-0.84)	0.77 (0.73-0.80)	

* ICD-10-AM code for *primary biliary cirrhosis/cholangitis* (K74.3) not shown as this code may be associated with early stage liver disease, not cirrhosis

† Patients may have had ≥1 code for 'cirrhosis' and varices' during an encounter

Table 2. Accuracy of combination ICD-10-AM codes to identify the presence of cirrhosis

#	ICD-10-AM algorithm to detect cirrhosis	n identified by algorithm	PPV (95% CI)	NPV (95% CI)	Kappa	Misclassification Error
0	Cirrhosis 'classic diagnosis'*	498	0.80 (0.77-0.84)	0.69 (0.54-0.82)	0.256	20.6%
1	K70.3, K74.4, K74.5, K74.6	349	0.96 (0.94-0.98)	0.60 (0.53-0.67)	0.606	16.7%
2	#1 + C22.0	359	0.96 (0.94-0.98)	0.62 (0.55-0.69)	0.632	15.2%
3	#2 + K70.4	376	0.95 (0.92-0.97)	0.65 (0.58-0.72)	0.640	14.3%
4	#3 + K72.9	385	0.94 (0.91-0.96)	0.67 (0.60-0.74)	0.646	13.7%
5.1	#4 + K76.6†	422	0.89 (0.86-0.92)	0.70 (0.61-0.77)	0.573	15.0%
5.2	#4 + K76.7	392	0.93 (0.90-0.95)	0.66 (0.58-0.74)	0.615	14.6%
5.3	#4 + grouped varices†	413	0.88 (0.85-0.91)	0.75 (0.66-0.82)	0.575	14.3%
6	#5.3 + K76.6†	447	0.88 (0.84-0.90)	0.76 (0.67-0.84)	0.557	14.4%

Encounters were identified by the algorithm if they had ≥1 specified code.

*Cirrhosis 'classic diagnosis' (Powell, et al[2]) identifies encounters that include ≥1 of the following ICD-10-AM codes: *alcoholic fibrosis and sclerosis of liver* (K70.2), *alcoholic cirrhosis of liver* (K70.3), *alcoholic hepatic failure* (K70.4), *chronic hepatic failure* (K72.1), *fibrosis and cirrhosis of liver* (K74.0), *primary biliary cirrhosis/cholangitis* (K74.3), *secondary biliary cirrhosis* (K74.4), *biliary cirrhosis, unspecified* (K74.5), *cryptogenic or unspecified cirrhosis of liver* (K74.6), *portal hypertension* (K76.6), *hepatorenal syndrome* (K76.7), *gastroesophageal varices with/without bleeding* (I85.0, I85.9, I98.3, I98.2, I86.4), and *hepatocellular carcinoma* (HCC) (C22.0). Patients with portal hypertension related to *primary thrombophilia* (D68.5, D68.6) and *schistosomiasis* (K77.0, B65.1, B65.9) are classified as non-cirrhotic.

† Patients with *primary thrombophilia* codes (D68.5, D68.6; n=2 in our cohort) and *schistosomiasis* (K77.0, B65.1, B65.9; n=0 in our cohort) were classified as non-cirrhotic.

Heatmap

- Among the 'validation cohort', 82 patients had ≥ 1 admission.
- Algorithm #6 (Table 2) detected 57.0% of admitted encounters in this group, representing ≥ 1 encounter among 76.8% of patients.
- The algorithm detected a large proportion of 'unplanned liver-related' encounters but only one-third of day admissions (Figure 1).

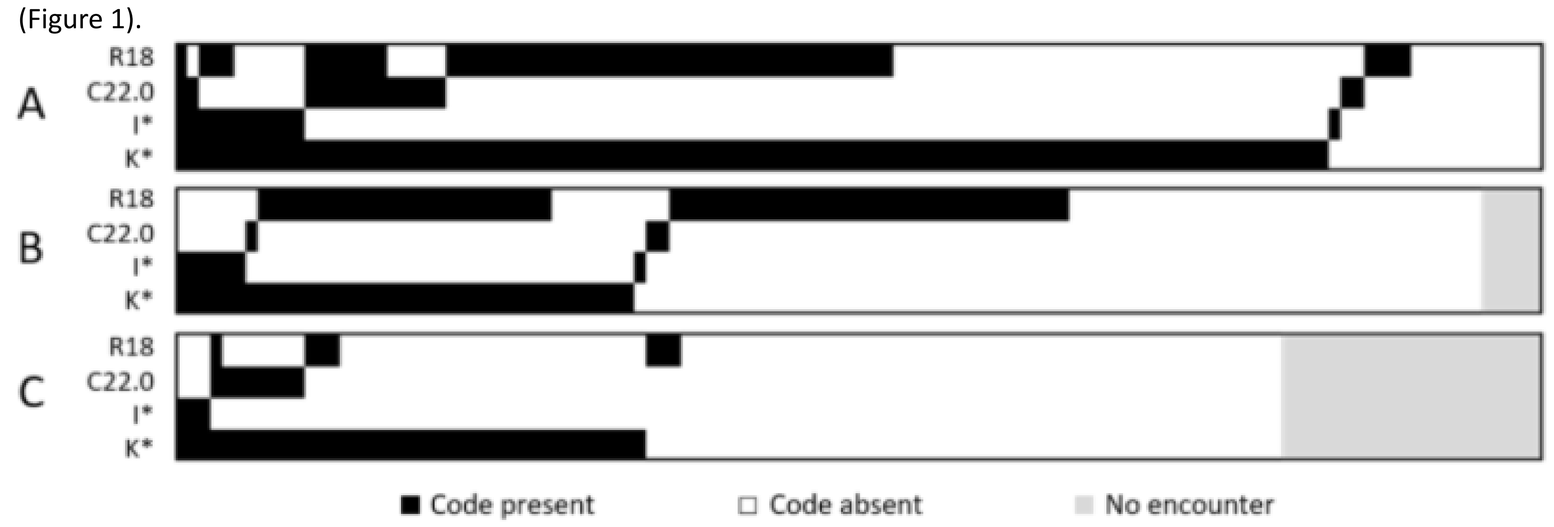

Figure 1. Heatmap depicting prevalence and clustering of select ICD-10-AM codes in 116 unplanned liver-related encounters (A), 111 elective day admissions (B), and 94 'other' encounters (C). Columns represent individual encounters. K* included at least one of: K70.3, K74.4, K74.5, K74.6, K70.4, K72.9, K76.6; I8 included at least one of: I85.0, I85.9, I98.3, I98.2, I86.4

Disclosure

The authors have no conflicts of interest to declare

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Barriers to Point-of-Care Ultrasound

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Background on

- Point-of-Care Ultrasound (PoCUS) informs clinical decisions and procedures in the Emergency Department (ED)
- PoCUS is cost effective, efficient, and safe, but highly user dependent [1,2]
- Adequate training required for correct use and interpretation
- Only ⅓ of Australasian ED trainees and consultants are credentialed
- Many use PoCUS without credentialing, with no standard of competency
- ACEM is likely to make credentialing a mandatory component of fellowship
- Hospitals should be prepared to teach PoCUS following ACEM guidelines.[3]

Aims

- Investigate current state of PoCUS in the ED of an Australian tertiary hospital, the PAH
- Identify major barriers and facilitators to accreditation in PoCUS
- Gauge the attitude and perspective of ED trainees regarding PoCUS

Method

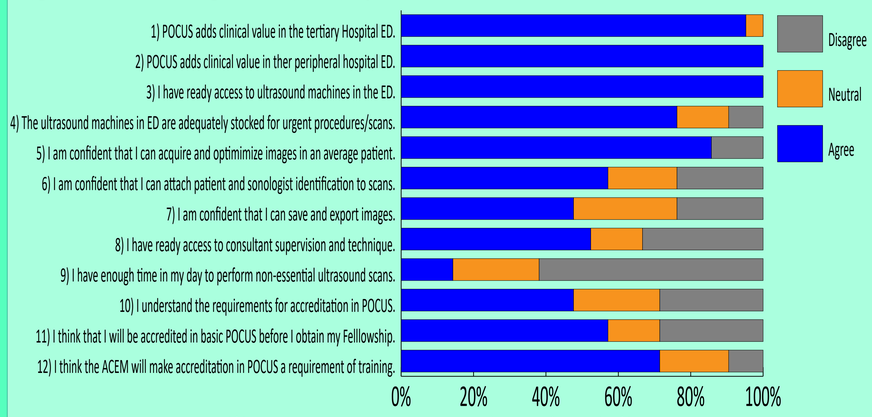
All ED trainees made aware of voluntary study → 13 registrars and 9 SHOs interviewed in person

Verbal responses recorded and coded → Codes organised into themes reviewed by all authors

Respondents rated 12 statements on Likert scale → Thematic analysis and Likert scale compared for agreement

Results

The Likert scale survey results are shown as the fraction of the 21 respondents who agreed with, were neutral towards, or disagreed with the statements. The thematic analysis is visualised with positive (green) and negative (red) quotes colour-coded.



Theme 1: Values of PoCUS and credentialing

- Subtheme 1A Values to the trainee
  - I think [ACEM] will either make it a requirement or it'll be accepted [...] as part of our skills. [...] I guess- accrediting would be ideal, but it would be something difficult to do and achieve. -Reg 1
  - It depends on whether or not I get an ultrasound job in the future or not. -Reg3
  - I haven't started now, so I'm be unlikely to get [accreditation] if I [...] was to begin. -Reg2
  - The ability to export images [...] and then put in iEMR, I find really useful because [...] it allows me to make clinical decisions on the basis of my scanning, but rather than saying this is just my opinion, I can put the images there that demonstrate what I'm doing – so if I'm scanning an abscess I can show that there's clearly an abscess- and I can measure it- and then decisions can be made on the basis of that, and other people who are retrospectively looking back can look at the evidence which I established with imaging [...] as opposed to me just making a comment on what I saw and then it's sort of not reproducible. – Reg7
- Subtheme 1B Benefit to the patient
  - I think in-in any ED, not just in tertiary- it gives a-a guideline, like an early simple answer [...] when eventually we will have a formal ultrasound or other formal scan or formal investigation to follow, but it helps us guide our initial management, particularly in the critically unwell. -Reg11
  - I think [...] there's probably more merit in being a better sonographer in the peripheral centres because you don't necessarily have a backup of a formal ECHO-or formal investigation in a timely manner. [...] -Reg11

Theme 2: Facilitators to PoCUS and credentialing

- Subtheme 2A Facilitators to PoCUS Education & Experience
  - This is the best access I've seen - and the best machines that I've ever seen in an ED. -SHO6
  - I suppose there seems to be good intent to try and have a logbook and to get these done and get them signed off. -SHO1
  - I know that [consultant] does offer a cheaper, one-day course - that's great- this is the only department I've ever worked in that ever offers that. -Reg6
  - [...] I think the general culture here is, sort of, very pro-ultrasound [...] the PA has developed a culture the way that everyone's [...] ultrasound aware and trusting to use it all the time clinically. -Reg8
- Subtheme 2B Facilitators to PoCUS Accreditation
  - Some- some departments do [other site] I used to work in [other site] and they would offer pay for your course for ultrasound. -Reg6
  - If I tried getting accreditation with PoCUS here, I think [it is] easy, particularly in this hospital, but personally I just haven't- to be honest- really -put in that much effort- cause I've got an ultrasound term coming up, so I was just gonna do it all then. - Reg8
  - Sounds like a good idea in theory. Again, It [...] depends a little bit on where you are and how much time you're allowed to [...] actually get the skills up, but yeah it would be useful skill to have. I suppose it sounds a good idea. -SHO1

Theme 3: Barriers to PoCUS and credentialing

- Subtheme 3A Barriers to PoCUS Education & Experience
  - At the moment, there's no dedicated time that you can actually do the ultrasound scans, there's not really a non-clinical time that [...] people can actually go and learn their ultrasound skills. -Reg13
  - [...] there's no time to do non-essential ultrasounds, which means that you don't have time to have someone who is accredited watching you to make sure you're doing it correctly. [...] time restraints is probably the big thing. -SHO2
  - Ah, well look, I think as a registrar setting in this hospital, there are other more pertinent jobs, than doing non-essential ultrasounds, so yeah for most of the time. - Reg12
- Subtheme 3B Barriers to PoCUS Accreditation
  - Um, probably the exact requirements expected? I guess because I'm an SHO, I don't really know if like, uh aortic scanning, or like AAA scanning. -SHO8
  - [...]I just don't feel I've had very much practice, uh, doing it. And um, it's a bit fiddly, and it's just one of those things that I've not spent the time learning to do efficiently because I tend not to. - Reg1
  - [...] you know getting FAST scans is easy when we can scan every trauma patient that comes through... pulling aside the time for finding the...peritoneal dialysis patients to order what an abnormal abdominal FAST looks like, just takes time that we don't have on the floor -Reg11
- Subtheme 3C Barriers to PoCUS Consultants
  - I don't actually know how many of the consultants here- I don't know who is accredited? -Reg6
  - They're very busy on the floor, so mostly we ask the registrars, not the consultants. -SHO3
  - I think that some of the consultants might not have grown up with ultrasound in the same way that we are. And so, if they haven't made an active effort to learn ultrasound technique. Might not be confident in [...] really wanting to teach others who use ultrasound potentially more than they do [...] and I wonder if it sort of underlies part of their [...] lack of desire to get involved teaching people on the floor. -Reg7

Discussion and Conclusion

- Good agreement between the survey and thematic analysis.
- Strong pro-US attitude at the PAH
- Lack of consensus on whether the ACEM should mandate PoCUS credentialing
- Major barriers are time constraints and competing priorities

Looking Forward

- Protected teaching for PoCUS may resolve the major barriers
- Ensure hospitals are equipped for credentialing
- Consider upskilling consultants to support credentialing of trainees

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The Impact of a Novel, Multi-Disciplinary Primary Care Approach on End-of-Life Decision Making for High-Acuity Patients in the MedVantage Clinic

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Introduction

End-of-Life (EOL) care is associated with improved quality of life in terminally ill patients. However, studies have shown that health care practitioners (HCPs) delay EOL discussions and overestimate life expectancy 63% of the time. Moreover, median length of time between EOL discussions and death has been reported to be as low as 33 days. The MedVantage Clinic at the Ochsner Primary Care and Wellness Center cares for high-acuity, chronically ill patients by utilizing a multidisciplinary team which includes social work, nurses, medical assistants, and mobile palliative care services. As such, the clinic is well-positioned to address EOL challenges. Here, we report on EOL decision making for MedVantage patients over the past 3 years.

Methods

A chart review of deceased patients at MedVantage Clinic from Jan 2017- Dec 2019 was done (N=78). Demographic, hospice enrollment, and comorbidity data was collected. Palliative Prognosis Score was calculated at date of first hospice discussion. Hierarchical Category Coding (HCC) was obtained from internal Ochsner databases.

Palliative Prognostic Score (PPS)

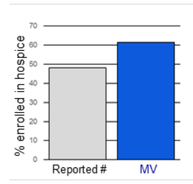
Parameter	Criteria	Partial score
Dyspnea	YES NO	1 / 0
Anorexia	YES NO	1.5 / 0
Karnofsky Performance Status	≥ 30 ≤ 20	0 2.5
Clinical prediction of survival (weeks)	> 12 11-12 9-10 7-8 5-6 3-4 1-2	0 2 2.5 2.5 4.5 6 8.5
Total WBC/mm^3	4.800-8.500 8.501-11.000 > 11.000	0 0.5 1.5
Lymphocyte %	20-40 % 12-19.9 % 0-11,9 %	0 1 2.5

	Total patients (N=78)
Age of Death	80 ± 1
Gender	Male, n=40 (51.3%) Female, n=38 (48.7%)
Race	White, n=48 (61.5%) Black, n=26 (33.3%) Asian, n=2 (2.6%) Hispanic, n=2 (2.6%)
Primary language	English, n=74 (94.8%) Spanish, n=2 (2.6%) Chinese, n=1 (1.3% Vietnamese, n=1 (1.3%)

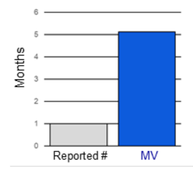
Results

- MedVantage patients on average have a higher acuity (HCC=2.02) compared to average primary care patients at Ochsner (HCC=1.62)

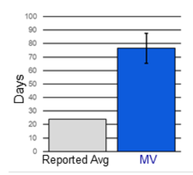
- 48.2% of Medicare patients who died in 2017 were enrolled in hospice at the time of death[1]
- 68% of deceased MedVantage patients received hospice care at one point and 61.5% received hospice care at death



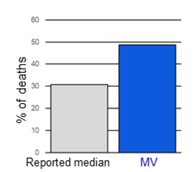
- EoL discussions were held a median of 33 days [13(Q1), 75(Q3)] before death[2]
- EoL discussions were held with 72% of the patients a median of 5.13 months [1.28(Q1), 11.6(Q3)] before death



- Average length of stay in hospice in US is 24 days[3]
- Of patients in which hospice discussions were held, 84% were ultimately enrolled in hospice an average of 76.5 ± 11.1 days



- 30.7% of deaths occurred at home in the US in 2017[4]
- At time of death, nearly half (48.7%) of all deceased patients received Home Hospice Care



PPS Score	Risk Group	30 Day Survival	N (%)
0 – 5.5	A	> 70%	45 (57.7%)
5.6 – 11	B	30-70%	29 (37.2%)
11.1 – 17.5	C	< 30%	4 (5.1%)

Discussion

- MedVantage Clinic patients, on average, have a higher burden of disease and complexity than other primary care patients at Ochsner
- A larger proportion of MedVantage Clinic patients engaged in EoL discussions and enrolled in hospice care at time of death than compared to prior studies
- Over half (57.7%) of deceased patients received the lowest Palliative Prognostic Score, indicating a 30-day survival prognosis greater than 70% at the time of hospice discussion

Conclusion

The multi-disciplinary primary care approach at MedVantage clinic is effective at engaging high-acuity, complex geriatric patients in hospice discussion before death with the majority receiving hospice care at time of death

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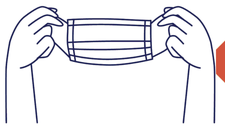
Effects of Prolonged Masking and Isolation Protocols during the COVID-19 Era – A Rural Hospital Perspective

Tonchanok Intaprasert[1,2]

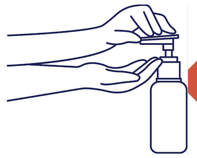
1) University of Queensland, Faculty of Medicine, Brisbane QLD Australia 2) St. Mary's Hospital, Camrose AB, Canada

INTRODUCTION

In March 2020, the spread of Covid-19 prompted strict infection control protocols in hospitals across Canada. For Camrose, a rural town in central Alberta, 3 major changes were implemented at St. Mary's Hospital.



Any personnel entering the hospital are required to get screened (temperature & questionnaires) & continuously wear masks.



Patients with symptoms related to Covid-19 (ex. Cough, dyspnea) are put in isolation until a negative nasopharyngeal swab is confirmed. Contact-droplets precautions are followed.

Absolutely no visitors are allowed; with very few exceptions.

IMPLICATIONS

Patients are left with limited interpersonal human connection.

Studies have shown that when isolation, defined as the removal of direct contact with others which results in limited social contact[8], is prolonged…

- Loneliness manifests and is associated with depression, anxiety, and premature deaths comparable to smoking and obesity.[1-3]
- In addition, patients who are elderly, have underlying physical and mental health conditions, or are socioeconomically disadvantaged are at greater risks of loneliness.[2]
  - This is of particular concern for rural regions such as Camrose with a large aging population and risk factor demographics

1ST OBJECTIVE

To understand the experience of patients & health providers navigating infection control policies (prolonged masking and isolation protocols) in rural Canada during the Covid-19 era.

2ND OBJECTIVE

To identify key issues and ways to improve the healthcare experience of patients & health providers when universal masking, source isolation, and visitor limitations interferes with interpersonal connection.

METHODS

Anonymous Voluntary Survey

- Survey created based on literature describing issues associated with isolation experience of hospitalized patients
- Health providers & patients received 2 separate surveys

Analysis

- Questions ranking agreements/ disagreements to statements grouped into percentages
- Open-ended questions grouped into prevalent themes

RESULTS

All surveys were conducted within the month of May, 2020 and yielded answers from:

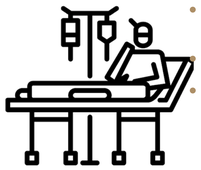
47 Health Providers

- 21 Registered Nurses
- 11 Licensed Practical Nurses
- 5 Physicians
- 3 Unit Clerks & Managers
- 2 Physiotherapists
- 1 Occupational Therapist
- 4 Unspecified positions

20 Patients

- Average age 70.5 years old
- Age range 27 to 95 years old
- Average length of stay 18 days

PATIENT'S EXPERIENCE



- **80%** increasingly rely on contact with loved ones for significant emotional support
- **50%** found themselves lonelier due to the isolation protocols
- **75%** agrees that good patient-physician relationship influences care & progress, with **55%** agreeing that they would feel more connected to health practitioners if they had a picture portrait while wearing masks

MOST DESCRIBED OVERALL EXPERIENCE

No visitor policy has increased distress

Feels cut off from the world, powerless, lonely & confined

HEALTH PROVIDER'S EXPERIENCE

- **53%** felt they cannot provide the same quality of care to patients as they could without Covid-19 precautions
- **55%** found additional isolation precautions and screenings has created more stress
- **49%** found major communication inadequacies with mask-wearing
- **62%** found it harder to relay information to a patient's family

MOST DESCRIBED OVERALL EXPERIENCE

Continuous masking impedes hearing & understanding – esp. elderly & those hard of hearing

Hard to keep up with policy changes/ new implementations due to the ever-changing nature of a pandemic

RESULTS

COMMONLY SUGGESTED IMPROVEMENT STRATEGIES

SHORT-TERM

Assistance with interpersonal connections & therapeutic relationships

- Use of practitioner's self-portrait print-outs when wearing face masks
- Showing unmasked face at a distance prior to donning PPE

Helping the elderly navigate the "new normal"

- Telehealth – provide phones & tablets with video chat for personal use
- Hearing aids – provide audio amplifiers to mitigate the muffle through masks

Mitigate loneliness & stimulating patient's alone time

- Leisure materials – crosswords & crafts
- Recreational therapists

LONG-TERM

- **Information package for patients & family on protocols & expectations**
- **Stronger relationship with local news to manage misinformation**
- **Re-organization of how information on policy changes are disseminated to health providers**
  - Explanation for policy exemptions or non-exemptions
  - One consolidated email rather than multiple per day
- **Protocols re-evaluation & preparation for future pandemics**
  - Relax the no-visitor policy in areas of low infection rates
  - Production of see-through masks
  - Incorporate more windows & glass doors in hospitals

CONCLUSION:

Patients experienced an increase in loneliness & disconnect with family & health providers. Health providers felt strict precautions had impeded person-centred care approach. Both parties identified strategies to reduce psycho-social implications & barriers to care while acknowledging the success that these precautions have done to contain the spread of Covid-19

DISCUSSION

- Covid-19 precautions has increased patient's sense of loneliness and disconnect from their loved ones and the outside world.
- Lack of increase supplementary resources such as auditory aids, recreational therapy, or a more succinct information dissemination system has made it hard for health providers to engage in the psycho-social aspect of care.
- Further studies in rural & urban regions can help create a picture of diversified experiences, barriers, and useful interventions for different demographics.
- New studies could trial the recommended mitigation strategies & evaluate its outcome in reducing patient's loneliness and practitioner's stress.
- Further analysis of the survey results can be done to see the correlation of each patient's hospital length of stay with each outcome identified in this study.

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For full report on all assessed questions within the survey or further collaboration please email Tonchanok Intaprasert, University of Queensland MD candidate, at t.intaprasert@uq.net.au

Improving Transitions of Care from Pediatric to Adult Neurology for Migraineurs: Ochsner Quality Improvement

Meghan Konda B.S., Jose Posas M.D.

Introduction

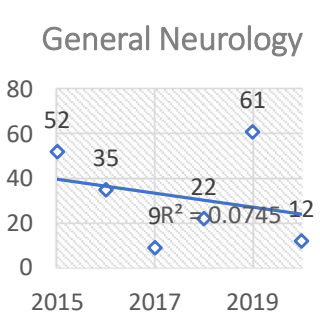
Transitions from pediatric to adult outpatient settings still needs research in specialty adolescent medicine such as neurology. Ochsner prides itself on continuity of care as a large provider in the southwest. Its use of EPIC, an electronic medical record, increases the efficiency of care across all centers. Ochsner is leading the way in terms of quality and safety. We are proposing recommendations for improving the quality of transfer of care between pediatric (PN) to adult neurology (AN) for migraineurs within Ochsner. Increasing the number of headache free days and lessening the severity has been shown to improve efficacy of medical therapy in these patients. Delaying therapy can lead to failure of medication and worse outcomes.

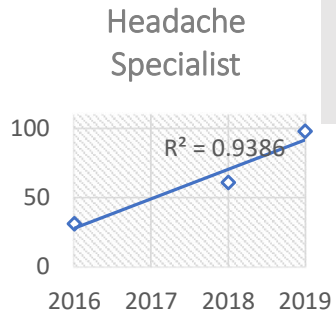
Methods

We looked at the time it took patients to attend their first adult neurologist appointment after their referral through retrospective chart mining of pediatric and adult neurologist clinic data over the last 5 years. Excluded patients who had not seen PN for more than 2 years since time of referral and patients over 18.

Results

27 referrals were made to AN between 2015-2020 across 5 PN, 7 general neurologists (GN), and 2 headache specialists (HS). Average days to AN appointment was 43 days. Average to GN appointment was 34 days. Average to HS appointment was 72 days. There was a slight negative trend in average number of days to first GN appointment. New appointments were not made between Feb 2020 – Apr 2020. Patients that were seen by GN were considered established patients, but patients seen by HS were scheduled as new patients.





Discussion

Improving efficiency of patient transfer of care from pediatric to adult settings at Ochsner can improve outcomes for patients, families, and care teams. Our data demonstrates that scheduling with HS specialist results in a greater delay in transfer of care compared to GN. This is likely due to scheduling them as new patients as well as a lower number of specialist staff (n=2) in comparison to GN (n=7). One patient, not in the data set, was being seen by both PN for tics and AN for migraines which highlights Ochsner's continuity of care for pediatric patients. This is the first data set Strategies to improve transfer of care like those recommended from the AAP, GotTransition.org, and the recently published Child Neurology Transition Toolkit as well as using a nursing coordinator from the adult neurology side could be of benefit towards helping migraineurs receive timely care. Data from implementation of the transition toolkit from Child Neurology Society could be a point of further study. Limited by small data set.

Effect of Preoperative Functional and Nutritional Status on Surgical Outcomes for esophageal cancers

Xinyi Luo BA, BS, MD candidate, Andrew Welch BA, MD candidate (Co-Author), John Bolton MD
Department of Surgery, Ochsner Clinic Foundation & University of Queensland School of Medicine

Introduction

- The importance of cancer-associated malnutrition has been studied over the last 40 years to decrease adverse outcomes, length of hospital stay, and ultimately leading to lower healthcare cost.[1, 2]
- Studies shown that a multimodal approach to prehabilitation (physical, nutritional, and psychological) can lead to a 51% reduction in postoperative complications and protein supplementation before surgery can significantly decrease the hospital LOS by 2 days.[3, 4]
- However, there's not a single functional and nutritional assessment tool available that can adequately assess a patient and predict outcome.[5]

Methods

- A qualitative and quantitative retrospective chart review was performed based on the esophagectomy case series of 405 patients from 2004 to 2019 maintained by the surgical oncology department at Ochsner
- 3 different surgeons were used for data collection, with the vast majority performed by a single surgeon
- Data is being collected from electronic medical records and entered into a RedCap database.
- Complications are being recorded in accordance with standards established by the ECCG and relevant tracking data we have established.
- Patients are included if they received an esophagectomy for malignancy at our center and have at least detailed post-op inpatient data until discharge or until the time of death

Results

Table 1: Summary Statistics

	Albumin < 3.4	Albumin ≥ 3.4	p-value
Count	118	242	
Gastrointestinal bleed	2.6%	0%	**0.04**
Thoracic wound dehiscence	2.6%	0%	**0.04**
Central line infection	2.6%	0%	**0.04**
	Prealbumin < 15	Prealbumin ≥ 15	
Count	22	143	
Deep vein thrombosis	4.5%	0%	**0.01**
Cerebral vascular accident	4.5%	0%	**0.01**
Other non-specified complications	31.8%	12.6%	**0.02**
	Prehabilitation	Non-Prehab	
Count	21	384	
ICU admission	14.3%	40.6%	**0.02**

- Improvement in patients after undergoing prehabilitation:
  - Get up and go time improved from 13.79 seconds to 10.07 seconds
  - Right grip strength improved from 25.1kg to 29.6kg
  - Left grip strength improved from 25.5kg to 28.8kg
  - Frailty score improved from 4.0 to 2.7

Discussion & Conclusion

- This data further demonstrates the importance of emphasizing and optimizing nutritional status preoperatively.
- The data also highlights the potential benefits of prehabilitation on surgical outcomes, specifically esophagectomy.
- In oncological patients, delaying surgery for up to 12 weeks to allow time for prehabilitation does not have an impact on overall long-term survival.[6]
- Some studies have used the 6-minut walk distance, grip strength, 10-meter walk speed, muscle-to-fat ratio, BMI, albumin, and prognostic nutritional index.[7]
- The current ERAS guideline advise surgeons to choose one of the existing tools according to hospital feasibility.[8]
- Further studies needed to establish a more consistent prehabilitation assessment protocol to optimize patient enrollment.

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Centre for Health Services Research
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Prevalence and factors associated with Advance Health Directives in frail older inpatients

James J O'Leary, Natasha Reid, Ruth E Hubbard, Nancye M Peel

Introduction:

Advance health directives (AHDs) can be used to explore and document patient preferences for treatment and are therefore an important aspect of care planning.

Method:

This retrospective study of the Comprehensive electronic Geriatric Assessment database included patients aged ≥ 65 years referred for specialist geriatric consultation between 2007 and 2018 in Queensland, Australia. The interRAI-Acute Care Comprehensive Geriatric Assessment tool was used to calculate a frailty index based on the model of accumulated deficits. All analysis was conducted using SPSS v25 (IBM Corp, Armonk, NY).

Objective:

To investigate the prevalence and factors associated with AHDs among older inpatients.

Results:

Mean (SD) age was 80.7 (7.7) years and 3489 (54.1%) were female. Majority of patients were born in Australia (72.4%) and admitted from the community (94.2%). Frailty index (FI) was categorised into four groups based on previously validated cut-offs: fit (FI ≤0.25), moderately frail (FI >0.25–0.4), frail (FI >0.4–0.6) and severely frail (FI >0.6).

This project was reviewed by the Office of Research Ethics at the University of Queensland and deemed to be exempt from ethics review under the National Statement on Ethical Conduct in Human Research. There was no external funding.

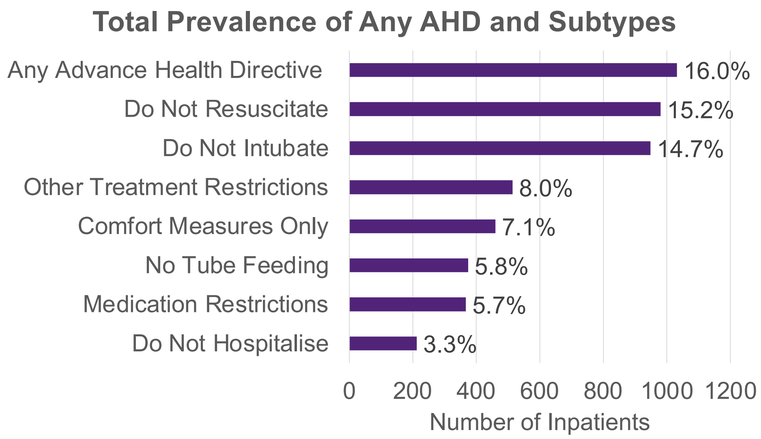
Table 1: Descriptive Statistics

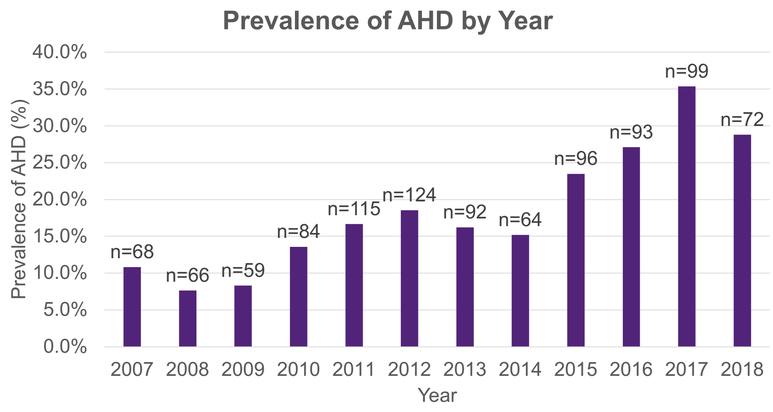
	Total N = 6449	AHD: n = 1032 (16.0%)	No AHD: n = 5417 (84.0%)	P value
Frailty Status: n (%)				
Fit	461 (7.2%)	30 (6.5%)	431 (93.5%)	**<0.001**
Moderately Frail	1928 (29.9%)	195 (10.1%)	1733 (89.9%)	
Frail	2952 (45.8%)	517 (17.5%)	2435 (82.5%)	
Severely Frail	1106 (17.2%)	289 (26.1%)	817 (73.9%)	
FI, mean (SD)	0.46 (0.15)	0.52 (0.14)	0.45 (0.14)	**<0.001**

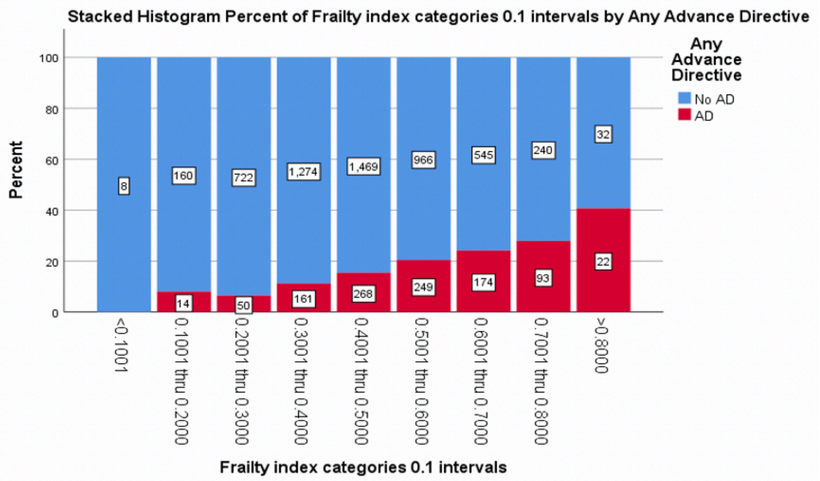
Table 2: Factors associated with having an AHD

	Unadjusted Odds Ratios (95% CI)	Adjusted Odds Ratios (95% CI)
Age	1.04 (1.03 - 1.05)	1.04 (1.03 - 1.05)
Gender:		
Male	1†	1†
Female	0.93 (0.82 - 1.06)	0.88 (0.76 - 1.01)
Living Arrangement:		
Alone in community	1†	1†
With others in community	1.21 (1.05 - 1.39)	1.05 (0.90 - 1.21)
RACF / other institution	2.20 (1.71 - 2.84)	1.33 (1.01 - 1.73)
Recent Hospitalisation:		
Yes	1.37 (1.20 - 1.56)	1.42 (1.23 - 1.62)
No	1†	1†
FI (0.1 Intervals)	1.38 (1.32 - 1.44)	1.34 (1.27 - 1.40)

†Reference Group







Conclusion:

The presence of AHDs is associated with sociodemographic factors, as well as higher frailty levels. Prevalence of AHDs among inpatients has increased over the past decade but remains modest.

CRICOS Provider Number 00025B

Decision-making for the Management of Cystic Lesions of the Pancreas: How Satisfied Are Patients With Surgery?

Hospital of the University of Pennsylvania

Beth Israel Deaconess Medical Center

Priya M. Puri BA, MS, Ammara A. Watkins MD, Tara S. Kent MD, Laura Maggino MD, Jenna Jeganathan PA-C, MHS, Mark P. Callery MD, Jeffrey A. Drebin MD, PhD, Charles M. Vollmer Jr. MD

Background

- Pancreatic cystic lesions (PCL) are at the forefront of incidentally found lesions
- They are a core element to a pancreatic surgical practice
  - 1/3 of resections
- Immense clinical challenge
  - Diagnostic uncertainty
  - Management dilemmas
- The options: surgery vs. surveillance

	Surgery	Surveillance
Pros	• Curative opportunity • Diagnostic clarity	• Avoids risk of morbidity and lifestyle changes
Cons	• Risk of complications • Lifestyle changes	• Risk of malignancy • Heightened anxiety

- While decisions are largely based on clinical and radiologic evidence, there may be value in incorporating the patient's perspectives as well
- Questions:
  - **How satisfied are patients with the outcome of surgery?**
  - **What was their impression of the decision-making process they took to get there?**

Methods

- Inclusion criteria: living patients following resection for a pancreatic cyst by 12 surgeons at 2 specialty centers (2004-2016)
- 62-question survey (yes/no, Likert scale, multiple choice questions)
- Administered via multiple platforms
- Compared to prospectively collected clinical data

Results

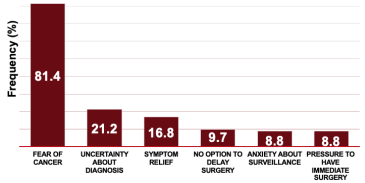
483 surgical patients → 405 alive → 113 Responses (27.9%)

- Median age: 65 years; 60:40 female to male ratio
- Majority of patients had intraductal papillary mucinous neoplasm (IPMN) or mucinous cystic neoplasm (MCN)
- These demonstrated the full spectrum of dysplasia, with one third harboring an element of

Final Pathologic Diagnosis	n (%)
IPMN	67 (60.9%)
Mucinous cystic neoplasm	13 (11.8%)
Other lesion	13 (11.8%)
Pancreatic ductal adenocarcinoma	7 (6.4%)
Neuroendocrine tumor	6 (5.5%)
Serous cystadenoma	3 (2.7%)
Cholangiocarcinoma	1 (0.9%)
Differentiation of Mucinous Cysts	
Low Grade	27 (36.5%)
Moderate Grade	21 (28.4%)
High Grade	21 (28.4%)
Invasive cancer	5 (6.8%)

Patient Decision-Making

- 65.6% felt anxious during the decision-making process
  - Uncertainty and ambiguity about the disease
  - Concern about outcome or surgery
- Main driver of choosing surgery = **FEAR OF CANCER**

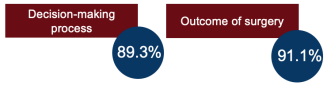


Patient Preferences

- Majority of patients reported that at the time of the original decision-making, they were ***confident*** surgery was the right decision (93.8%)
- 99.1% felt that surgery was the ***best*** option
- 85.7% even felt that surgery was the ***only*** option
- 94.5% felt they had the right amount of involvement in the decision-making process

Patient Satisfaction

- At a median time of 52 months since surgery, patients were *quite* or *fully* satisfied with:



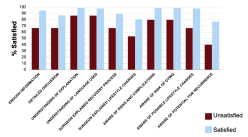
- Only 2.8% would change decision to have surgery
- High satisfaction rates regardless of:
  - Time between date of surgery and survey completion
  - Type of resection
  - Occurrence of postoperative complications
  - Presence of malignancy and grade of dysplasia
  - Discrepancy between suspected and actual diagnosis
  - Lifestyle changes – **except** for exocrine insuffiency negatively impacting the decision-making process

	Outcome of surgery	Decision-making process
Diabetes	No impact	No impact
Exocrine insufficiency	No impact	Negative impact p=0.004

Analysis

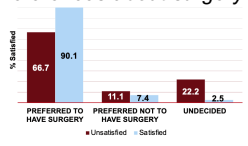
- **Unsatisfied patients** (13.6%) differed in their:

Knowledge & understanding



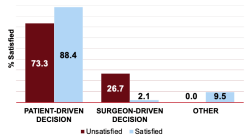
All p ≤0.05

Preferences about surgery

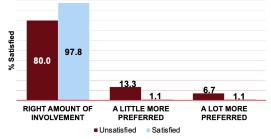


Less likely to prefer surgery (p=0.021)

Decision-making responsibility & Involvement in decision-making

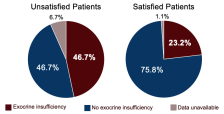


Higher likelihood of surgeon-driven decision (p<0.001)



Preferred more involvement (p=0.009)

Development of exocrine insufficiency



Higher rate of exocrine insufficiency (p=0.039)

Conclusion

- **Fear of cancer** = main influence in decision-making
- **High patient satisfaction** regardless of:
  - Type of resection
  - Complications
  - Malignancy and grade of dysplasia
- **Factors associated with satisfaction:**
  - Knowledge and understanding
  - Consistency between patients' preferred and actual involvement in the process

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Year 4 Doctor of Medicine Student
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NON-ALCOHOLIC FATTY LIVER DISEASE: INTERFACE BETWEEN PRIMARY CARE AND HEPATOLOGY CLINICS

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Background

- Non-Alcoholic Fatty Liver Disease (NAFLD) is the most common chronic liver disease seen by primary care providers (PCPs)
- The most important predictor of mortality and morbidity is advanced fibrosis (i.e., bridging – stage 3; cirrhosis – stage 4) and such patients benefit from specialist hepatology care and surveillance for liver decompensation and cancer
- Patients without fibrosis can usually be managed in primary care by addressing cardiovascular risk factors and monitoring for signs of progression
- PCPs are the first point of care for diagnosing NAFLD, assessing liver disease severity, and gauging appropriate need for hepatology referral in those at high risk for advanced disease
- PCPs may underestimate NAFLD prevalence and PCP unfamiliarity with readily available fibrosis biomarkers and scoring systems such as Fibrosis-4 (FIB-4) and NAFLD Fibrosis Score (NFS) may lead to inefficient specialist referrals

Objectives

- To characterize PCP referrals for patients diagnosed with NAFLD at a major tertiary hospital
- To determine liver disease severity and patient pathways following hepatology assessment

Methods

- This was a retrospective study of new patients diagnosed with NAFLD at the Princess Alexandra Hospital's Hepatology Outpatient Clinic (HOC) between February 2017 and March 2018
- Standardized information was retrieved from PCP referrals, laboratory investigations, imaging, and clinic notes
- NAFLD was diagnosed by the treating hepatologists
- Advanced fibrosis was determined based on hepatologists' clinical judgement, non-invasive biomarkers, Fibroscan results, and liver histology (if available)

Methods *(continued)*

- PCPs primary and secondary reasons for referral were identified
- FIB-4 and NFS were calculated from referral contents
- Data are presented as counts and proportions (%)

Results

- 234 new PCP referrals, coming from 170 individual PCPs, received a diagnosis of NAFLD during the audited time period (20.4% of new HOC cases); Mean age = 52.6 ±14 years; 53% male

GP Referral Characteristics

- Primary and secondary reasons for PCP referral are outlined in Figure 1

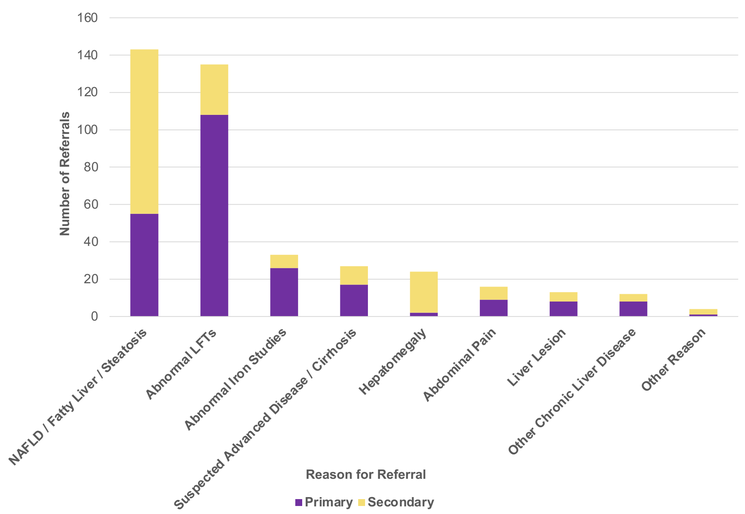

Figure 1. Reason for referral of new patients seen in the HOC with a diagnosis of NAFLD. The PCP's main reason for the patient's referral was coded as the "primary" reason. Additional queries or concerns documented in the referral letter were coded as "secondary" reasons for referral.

- A higher proportion of referrals documenting NAFLD included information about metabolic risk factors (Figure 2)

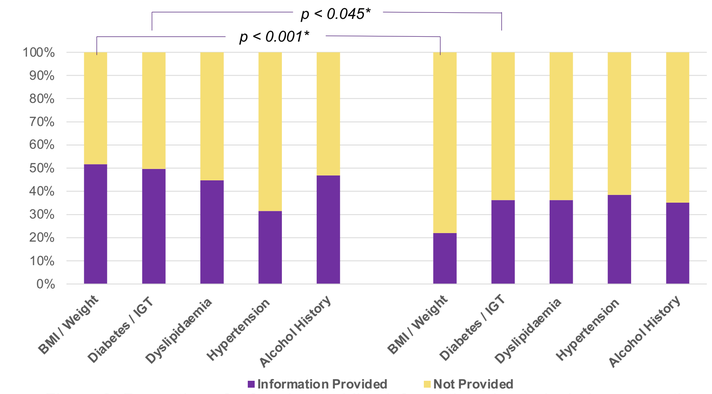

*Figure 2. Proportion of referrals providing information about alcohol consumption and metabolic risk factors. Differences between groups were assessed using *Pearson's χ^2 test. Note: Abbreviation IGT – Impaired Glucose Tolerance.*

Liver Disease Severity

- 11.5% (n=27) of referrals included an assessment of liver disease severity and 37.8% (n=54) of referrals for NAFLD, steatosis, or fatty liver (n=143) included sufficient information to calculate FIB-4 and NFS scores
- 21.8% (n=51) of 233 patients who completed the fibrosis assessment were diagnosed with advanced fibrosis in the HOC
- Combination NFS and FIB-4 scores calculated from referrals for NAFLD, steatosis, or fatty liver (n=54) demonstrated 90.5% negative predictive value for patients excluding advanced fibrosis

Patient Management Pathway

- Post HOC consultation, 74.8% (n=175) of patients were found to have 'low' risk of advanced fibrosis, and 90.9% (n=159) of these patients were discharged back to their PCP for ongoing follow-up
- 84.3% (n=43) of the 51 patients diagnosed with advanced fibrosis were scheduled for ongoing HOC follow-up

Conclusions

- Improving PCP education and awareness regarding NAFLD and relevant risk-stratification tools (i.e., FIB-4 & NFS) may improve the quality and appropriateness of hepatology referrals, thereby reducing secondary care pressures and healthcare costs

Data Template: Out of Hospital Cardiac Arrests (OHCA) Princess Alexandra Hospital

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Objective: The introduction of a data template to enable efficient, and complete uniform collection of determinants of outcome after OHCA.

Methods:

1) **Development of Data Template:** Data element domains were selected based on the Utstein Resuscitation Registry template.
2) **Introduced:** Education and IT support provided to SHOs, Registrars and Consultants regarding access to, and utility, of the data template.
3) **Evaluated:** Data were evaluated to compare the proportion of missing data from the electronic medical record pre and post introduction of the OHCA data template.

Data Points Recording Determinants of Outcome After OHCA:

Place of Arrest
Witnessed Arrest

By-stander CPR
EMS CPR
Chest Compressions:
-Manual
-Mechanical

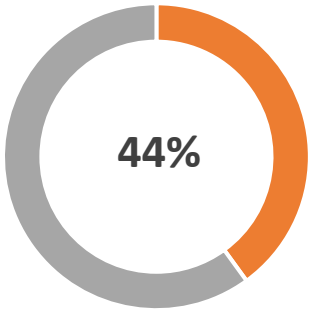
Initial Rhythm
Defibrillation Mode
# of Shocks Delivered

QAS: Time of Dispatch
Scene Arrival Time
Scene Departure Time
Time of Arrival at ED
Time of ROSC
Vitals on Scene

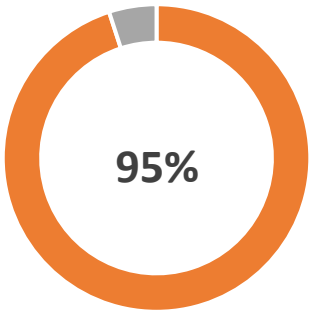
Vitals in ED
Investigations
Procedures
Medications

Results: % of data points documented

Pre- Data Template



Post- Data Template



Conclusion:

This pilot study demonstrates that use of the OHCA Data Template enables complete and uniform documentation of the determinants of outcome for patients who have suffered an OHCA. The challenges ahead are enhancing the clinician - information and technology interface, improving the clinician user experience and increasing usage of the data template. Future steps include further collaboration with iEMR and FirstNet technical experts.