$p=0.02$) were significantly more prevalent than in abstinent LT recipients (table 1).

Conclusion At our center, almost $\frac{1}{4}$ of recipients consumed alcohol early on post-LT, all with a low-risk pattern according to AUDIT score. Interestingly, alcohol consumption was more prevalent in non-ALD-related LT.

P019 LIVER SIZE AND HEPATIC FAT INDICATE DIFFERING PHENOTYPES OF ACUTE ALCOHOLIC HEPATITIS

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Introduction Alcoholic hepatitis (AH) is an acute manifestation of alcohol related liver disease with very poor survival. The aim of this study was to identify phenotypes of AH based on radiological measures of liver size and hepatic fat content.

Methods Consecutive patients admitted to our institution with a clinical diagnosis of AH (based on the NIAAA definition) who had computed tomography (CT) imaging of the abdomen within 10 days of admission were included. AH phenotypes were defined by two parameters: a. hepatic steatosis was calculated using a liver/spleen attenuation ratio (LSR) of 1.0 as the cut-off, and b. liver volume characterised as small if $<2000 \text{ cm}^3$ and large if $>2500 \text{ cm}^3$. Hepatic VCAR was used to obtain both LSR and liver volumes. STATA 16 was used for statistical analyses. Kaplan Meier analysis was used to describe survival from admission and the log-rank test was used to compare survival between groups. Medians were used to describe biochemical data.

Results 47 patients were included, out of which 56.7% were male. The median patient age was 48 (range 25–76). Liver volumes varied considerably in this cohort (median 2589 cm^3 , range 1016 cm^3 - 6352 cm^3). Patients were categorised as follows: Large Fatty (LF; $n=22$), Large Non-Fatty (LNF; $n=4$), Small Fatty (SF; $n=15$) and Small Non-Fatty (SNF; $n=6$). Overall median survival was 427

Abstract P019 Figure 1

days from admission. Survival was better in fatty livers compared to non-fatty livers ($P=0.01$, figure 1). These four groups differed with regard to median bilirubin and urea concentrations, which were both higher in patients with non-fatty livers (LF: bilirubin= $174.5 \mu\text{mol/L}$, urea= 3.25 mmol/L ; SF: bilirubin= $74.5 \mu\text{mol/L}$, urea= 3.4 mmol/L ; LNF: bilirubin= $250.5 \mu\text{mol/L}$, urea= 11.9 mmol/L ; SNF: bilirubin= $245.5 \mu\text{mol/L}$, urea= 7.1 mmol/L). Only 3 patients were treated with corticosteroids, insufficient for analysis of treatment response.

Conclusion Liver volume varies significantly between patients admitted to hospital with acute AH. Patients with fatty livers have better medium-term survival and both lower bilirubin and urea levels than people with non-fatty livers.

P020 IMPROVING CARE FOR PATIENTS WITH DELIRIUM TREMENS

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Assess (the situation) From the start of 2021, as the UK entered another COVID19 lockdown, we noticed a stark increase in the numbers of patients presenting with, or developing, Delirium Tremens (DTs). While historically, it had been rare to see DTs within our organisation, it became a frequent occurrence and concerns were raised about staff safety and adverse outcomes for patients.

Diagnose (identify the problem) We (Alcohol Care Team) identified a knowledge gap in the recognition, treatment and nursing management of acute alcohol withdrawal amongst ward staff which was contributing to the onwads progression of DTs in patients.

Plan Using our Trust guidelines for alcohol withdrawal and team expertise, we developed a nursing care plan for patients experiencing acute alcohol withdrawal, outlining optimal care and highlighting key elements of the Trust policy.

Implement (deliver the plan) We used the care plan as a framework to guide informal teaching to staff on the Gastro/Hepatology wards. Furthermore, we made ourselves increasingly available when patients were in DTs and prioritised supporting staff in the hands on/active management of patients in DTs (akin to a low dose, high frequency approach, Jhpiego 2016)¹ in order to maintain safety, optimise patient care and demonstrate clinical leadership.

Evaluate (did the plan work? Where are we now?) The care plan has been well received by staff. It is due to be submitted through our internal governance structure in order for it to be used as a clinical tool in practice.

REFERENCE

1. Jhpiego Resource Brief. Low dose, high frequency: a learning approach to improve health workforce competence, Confidence, and Performance [Internet]. Baltimore; 2016. Available from: www.healthynetwork.org/hnn-content/uploads/Jhpiego-LDHF_brief-1.pdf

Acknowledgments With thanks to all members of the Alcohol Care Team who peer reviewed the care plan.

Nursing care plan: Acute alcohol withdrawal

Alcohol withdrawal syndrome*

Only occurs in patients who are alcohol dependent. Usually starts 8-24 hours after last consumption of alcohol/significant reduction.

Duration: Typically lasts 2-7 days. Peaks at 36-72 hours.

Clinical features: Nausea/vomiting, poor/no appetite, headache, tremor, tachycardia, palpitations, excessive sweating, hypertension, hyperreflexia (e.g., twitching, sensitivity to light or noise), insomnia, fatigue, restlessness, agitation, anxiety, and craving for alcohol. If untreated these symptoms can worsen progressing to hallucinations, seizures and delirium (see DTs).

Assessed using: Clinical Institute Withdrawal Assessment for Alcohol - revised (CIWA-Ar) – a clinical assessment tool.

Treated using: Benzodiazepines are the treatment for alcohol withdrawal. Benzodiazepines stabilise the neurotransmitters in the brain that become dysregulated following the cessation of alcohol.

*All information taken from UHS Alcohol Use Disorders: Guideline for Assessment and Management (April 2020) policy

Delirium Tremens (DTs)*

Begins 24-72 hours after last consumption of alcohol/significant reduction. High mortality rate (5-35%) and is a medical emergency. We should consider delirium tremens a 'never' event, as it can be prevented. However, on occasion patients may present to hospital in DTs.

Clinical features: Differs from alcohol withdrawal in that there are signs of altered mental state e.g., hallucinations (visual/auditory/olfactory/tactile), confusion, delusions, severe agitation and seizures. Patients may not have the 'classic' signs of withdrawal e.g., tremor, sweats etc. Patients in DTs usually lack capacity to make decision about their care.

Treated using: Benzodiazepines (see Management of Delirium Tremens protocol** for advice around use of haloperidol in these patients)

**Management of Delirium Tremens protocol can be found in Appendix C iv of the UHS trust policy - Alcohol Use Disorders: Guideline for Assessment and Management (April 2020) on StaffNet

Below is an **example** of a care plan for acute alcohol withdrawal. As with everything we do, each patient is an individual and the care plan may not cover every eventuality. Equally each problem identified on the care plan may not apply to your patient. Caring for patients in alcohol withdrawal requires critical thinking. Don't forget to use the nursing process (ADPIE) to guide the care you deliver:

Assess - gather information on the situation

Diagnose - what is the nursing diagnosis/problem identified?

Plan - what's your plan, goals, care you will implement?

Implement - deliver the care you have planned.

Evaluate - did your plan work? Where are we now?

Any patient on this care plan/receiving benzodiazepines should be referred to the Alcohol Care Team – anyone can do this via Equest. If you have concerns about your patient or require support/advice please call 5721 or bleep 1808 (Mon-Fri 8am-8pm, Sat 9am-1pm)

Care plan goal: To maintain patient safety and ensure safe withdrawal from alcohol

Problem identified	Background/rationale	Nursing care/interventions planned												
1. Monitoring signs and symptoms of alcohol withdrawal and administering benzodiazepines as prescribed/required	<p>At UHS we use the CIWA-Ar clinical assessment tool to monitor/score alcohol withdrawal and to help guide administration of regular and PRN doses of benzodiazepines.</p> <p><i>Benzodiazepines treat alcohol withdrawal, and it is important these are administered in a timely manner. We mainly use chlordiazepoxide unless the patient has decompensated liver disease or is over 80years old, when we use oxazepam as it is shorter acting. If a patient is NBM or declining tablets, IV/IM lorazepam/diazepam may be used.</i></p> <p><i>Most patients are prescribed a regular (gradually reducing) regimen of benzodiazepines (5 or 7 day course) with PRN doses available to be given as needed in between. Patients can have up to 250mg chlordiazepoxide/oxazepam in a 24hr period (if more than this is needed, they need senior Dr review first). Doses differ for lorazepam/diazepam.</i></p> <p><i>Main complications of benzodiazepines (chlordiazepoxide/oxazepam/lorazepam/diazepam) are respiratory depression and drowsiness. Omit doses if the patient is drowsy or there is evidence of respiratory depression.</i></p>	<ul style="list-style-type: none">Use CIWA-Ar to score severity of withdrawal – the table below can act as a guide, but professional judgement and critical thinking skills are crucial <table border="1"><tr><td>Mild withdrawal</td><td>CIWA-Ar <10</td><td>Tense, irritable, poor concentration.</td><td>Repeat CIWA-Ar 2-4hrly minimum. Administer regular benzodiazepines (as prescribed) unless drowsy.</td></tr><tr><td>Moderate withdrawal</td><td>CIWA-Ar 10-20</td><td>Tachycardia, nausea, tremor, sweats, anxious, headache, irritable</td><td>Give 10-20mg PRN or regular dose if due, check effect after 30mins, if improved repeat CIWA-Ar 2-4hrly. If not improving, give further 10-20mg PRN (repeat steps above)</td></tr><tr><td>Severe withdrawal</td><td>CIWA-Ar >20</td><td>Confusion, visual or auditory hallucinations, irrational thoughts/fears, bizarre, aggressive or uncooperative behaviour, seizures</td><td>Give 20-30mg PRN/STAT/regular dose if due, check effect after 30mins, if improved repeat CIWA-Ar hourly. If no improvement give further PRN (see Management of Delirium Tremens protocol** if concerned in DTs)</td></tr></table> <ul style="list-style-type: none">Administer regular benzodiazepines as prescribedOmit benzodiazepines if drowsy/respiratory depressionAssess effect of PRN doses 30 minutes after administration using CIWA-Ar	Mild withdrawal	CIWA-Ar <10	Tense, irritable, poor concentration.	Repeat CIWA-Ar 2-4hrly minimum. Administer regular benzodiazepines (as prescribed) unless drowsy.	Moderate withdrawal	CIWA-Ar 10-20	Tachycardia, nausea, tremor, sweats, anxious, headache, irritable	Give 10-20mg PRN or regular dose if due, check effect after 30mins, if improved repeat CIWA-Ar 2-4hrly. If not improving, give further 10-20mg PRN (repeat steps above)	Severe withdrawal	CIWA-Ar >20	Confusion, visual or auditory hallucinations, irrational thoughts/fears, bizarre, aggressive or uncooperative behaviour, seizures	Give 20-30mg PRN/STAT/regular dose if due, check effect after 30mins, if improved repeat CIWA-Ar hourly . If no improvement give further PRN (see Management of Delirium Tremens protocol** if concerned in DTs)
	Mild withdrawal	CIWA-Ar <10	Tense, irritable, poor concentration.	Repeat CIWA-Ar 2-4hrly minimum. Administer regular benzodiazepines (as prescribed) unless drowsy.										
Moderate withdrawal	CIWA-Ar 10-20	Tachycardia, nausea, tremor, sweats, anxious, headache, irritable	Give 10-20mg PRN or regular dose if due, check effect after 30mins, if improved repeat CIWA-Ar 2-4hrly. If not improving, give further 10-20mg PRN (repeat steps above)											
Severe withdrawal	CIWA-Ar >20	Confusion, visual or auditory hallucinations, irrational thoughts/fears, bizarre, aggressive or uncooperative behaviour, seizures	Give 20-30mg PRN/STAT/regular dose if due, check effect after 30mins, if improved repeat CIWA-Ar hourly . If no improvement give further PRN (see Management of Delirium Tremens protocol** if concerned in DTs)											
2. Haemodynamic instability (NEWS)	<p><i>In acute alcohol withdrawal and DTs, common abnormalities in observations include hyperthermia, tachycardia, arrhythmias, hypoglycaemia, hypertension</i></p> <p><i>Main complication of benzodiazepines (chlordiazepoxide/oxazepam/lorazepam/diazepam) is respiratory depression and drowsiness. Pupils may be dilated. Flumazenil is the drug used to reverse benzodiazepines in cases of overdose</i></p>	<ul style="list-style-type: none">If stable and mild-moderate withdrawal - 4hrly observations. Escalate NEWS as per trust policy.Severe withdrawal (CIWA-Ar >20) – hourly observations. Escalate NEWS as per trust policy.Moderate-severe withdrawal - 2hrly blood glucose levels for first 12hrs of admissionECG (if evidence of arrhythmia noted/as indicated otherwise)If evidence of over-sedation (assess CNS with tool e.g., AVPU) or respiratory compromise (reduced respiratory rate and/or low saturations) – omit benzodiazepines (and other CNS depressants e.g., morphine) and inform medical team/seek help												

3. Poor nutritional intake	<p>People who drink alcohol dependently commonly report poor diet/oral intake and may present to hospital in refeeding syndrome and very malnourished. Diarrhoea and vomiting are common and people who drink at higher/dependent levels may also have gut malabsorption. Specifically, high alcohol use is strongly associated with thiamine (vitamin B1) deficiency.</p> <p>Deranged electrolytes (due to refeeding syndrome and high alcohol use) and thiamine deficiency are therefore common in patients withdrawing from alcohol and may contribute to confusion/agitation whilst also placing patients at risk of other complications such as cardiac arrhythmias.</p>	<ul style="list-style-type: none"> • Dietician referral if concerns (as per usual trust policy) or if any indication of refeeding syndrome (the medical team will be reviewing the need for this) • Frequently prompt patient to eat – food chart if concerns • Encourage oral fluids frequently • Timely administration of IV/oral electrolyte replacement and IV Pabrinex/oral vitamins as prescribed • Patent cannula – ensure VIP score completed/cannula care as per trust policy • BGL monitoring (as per section 1)
4. Maintaining a safe environment	<p>Patients in withdrawal may become agitated, aggressive or hallucinate. Patients will not be aware they are doing this – this is not a patient 'behaving badly', they are critically unwell. Patients may try to leave the ward. They may not be safe to be left unsupervised. They may be unsteady on their feet and at risk of falls.</p>	<ul style="list-style-type: none"> • Nurse in a calm, well-lit and well-ventilated environment – minimise noise and activity where possible (also see section 5) • Ensure nicotine replacement is offered/prescribed if applicable (patient may be trying to leave to have a cigarette, nicotine replacement may reduce irritability) • Can they be moved to a quieter side room or a bed visible from the nurse's station (whichever is most appropriate)? • Do they need to be under a DOLS? Are you concerned about their capacity to refuse treatment or leave? Raise with medical team if so • Request 1:1 staffing, 2:1 staffing may even be required at times, staff safety is paramount. Discuss with bleep holder/matron. Please see the Enhanced Care Observation Policy (Sept 2020) on StaffNet (formerly called the specialising policy) for further guidance if close observation is indicated. • Falls prevention care (as per trust policy) - ensure they have appropriate footwear on, keep bedspace clear of trip hazards, ensure walking aids are to hand if used etc.
5. Impaired communication	<p>Patients are often anxious, agitated and/or may be hallucinating. They may not be able to express their concerns and may not understand what is happening around them. Withdrawal from alcohol can be really frightening. Reassurance and good communication skills are vital.</p> <p>Of note, people in alcohol withdrawal/DTs may speak their first language if English is a second language (even if they usually speak English well).</p>	<ul style="list-style-type: none"> • If English not spoken/understood - can we use language line? Can they be cared for by a member of staff who speaks their language? • Ensure baseline communication aids are working and being used (e.g., hearing aids) • Try to create a calm environment by using lower tone/volume of voice, avoid confrontation/grabbing/restraining (unless there is an immediate risk of serious injury/harm to patient or others in which case reasonable and proportionate force can be used), make instructions clear and minimal, keep the environment quiet as far as you can • Reassure patient regularly, do not challenge delusions but gently reorientate them to where they are and what is happening • Ensure family are involved in care – via phone or visits (as permitted)
6. Assistance with personal care	<p>People in alcohol withdrawal may be unable to meet their own self-care needs/activities of daily living temporarily.</p>	<ul style="list-style-type: none"> • Assist with washing and dressing as required • Prompt to use the toilet regularly – provide care if incontinent • Frequent bed/clothes changes – profuse sweating is common in alcohol withdrawal • Consider pressure area care
7. Emergency preparedness	<p>Delirium tremens, seizures and cardiac arrest are complications of withdrawal that we aim to avoid by providing the care in the plan above.</p> <p>However, in rare situations these may occur. It is important to be prepared for this and to know what to do should they arise.</p>	<ul style="list-style-type: none"> • Check bedside safety equipment at the start of each shift – do you have working suction at the bedside? Is there a non-rebreath mask available and a nipple on the bedside oxygen? • Do you know where the crash trolley is? • Do you know the emergency numbers for the crash team in case of seizure/cardiac arrest (2222) and security if the patient is aggressive or tries to leave (and is under DOLS)? (3333) • Notify the medical team and Alcohol Care Team if you are struggling to manage the patient's withdrawal (remember to evaluate the care you are giving throughout the shift – is it working? Get help if it isn't) • Be familiar with the Management of Delirium Tremens protocol**. Think ahead - if you are worried your patient is moving in this direction have this to hand, ensure the necessary drugs have been prescribed and medical and alcohol teams are aware. • The alcohol nurses are happy to come and help stabilise patients in withdrawal (bleep 1808. Ext 5721)

Abstract P020 Figure 1 Nursing care plan: acute alcohol withdrawal (attached)

P021

REVIEW OF IMPACT OF COVID 19 ON HEPATOCELLULAR CARCINOMAS (HCCS) PRESENTED AT THE NORTHERN IRELAND (NI) REGIONAL MDM

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Introduction The COVID 19 pandemic has impacted the management of most patients including those with chronic liver disease. HCC usually arises in patients with liver cirrhosis and the Belfast Trust HCC screening program was suspended for 3 months in 2020.

Our aim was to assess the number and source of referrals along with treatment outcomes for 2020 compared to 2019.

Methods The regional HPB MDM database was reviewed to identify all HCC cases during a 12 month period from 1st January 2020. Results were compared with an audit of HPB MDM outcomes from 2019.

Results 80 patients with HCC were identified, compared to 82 in 2019. There was a reduction in referrals as expected in the second quarter of 2020, as illustrated in the table 1.

12 (15%) patients were detected via HCC screening programme, compared to 19 (23%) in 2019.