Poster Corner 2: ICU Organisation and Outcome

018 - IDENTIFYING HIGH PRIORITY AREAS FOR QUALITY IMPROVEMENT USING PATIENT AND FAMILY SATISFACTION QUESTIONNAIRES

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INTRODUCTION. Previous studies used family satisfaction in the intensive care unit (ICU) as a proxy for patient satisfaction[1,2] but patients and their family may have different viewpoints about ICU care.
**OBJECTIVES.** To identify high priority areas for ICU quality improvement from the patients' and their family's perspectives.
METHODS. After critically ill patients were discharged to the general wards, the 24-item Family Satisfaction in the ICU (FS-ICU) questionnaire[1] and its adapted patient version (PS-ICU) were given to participants. Important performance analysis (IPA)[3] plots were drawn to identify areas of high priority for quality improvement in ICU (quadrant I). We also estimated the intra-class correlation for consistency between PS-ICU and FS-ICU.
RESULTS. We recruited 232 critically ill patients (mean (SD) age: 59 (12.6) years; 165 (71%) males; 192 (83%) surgical admissions) and their family (mean (SD) age: 49 (14.4) years; 115 (50%) males). Using IPA, we identified common areas for improvement (quadrant I): agitation management, ease of getting information from ICU staff and honesty of information (Fig 1-2). Patients also indicated they need more communication with ICU nurses. Families wanted more consistent and complete information about progress of the patients, and understand the information provided better.

[Fig 1]

Figure 2. Importance-Performance Plot for FS-ICU
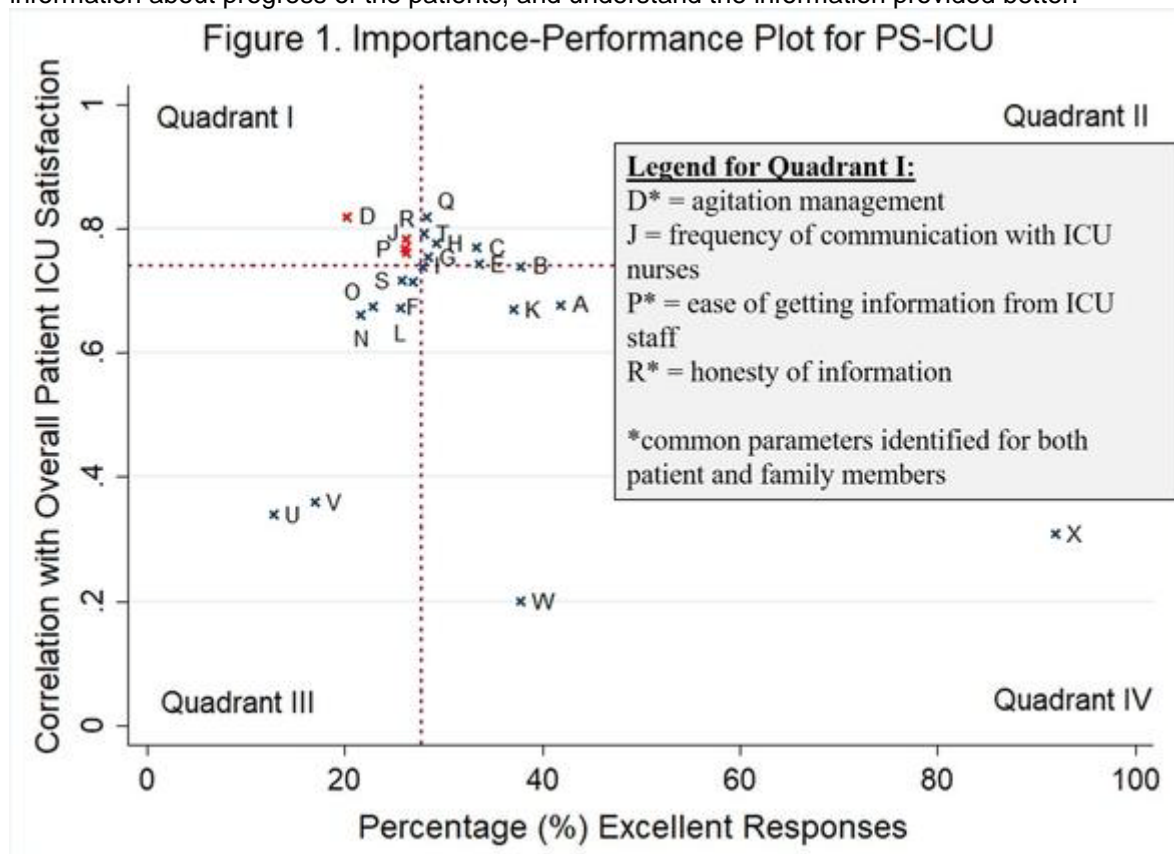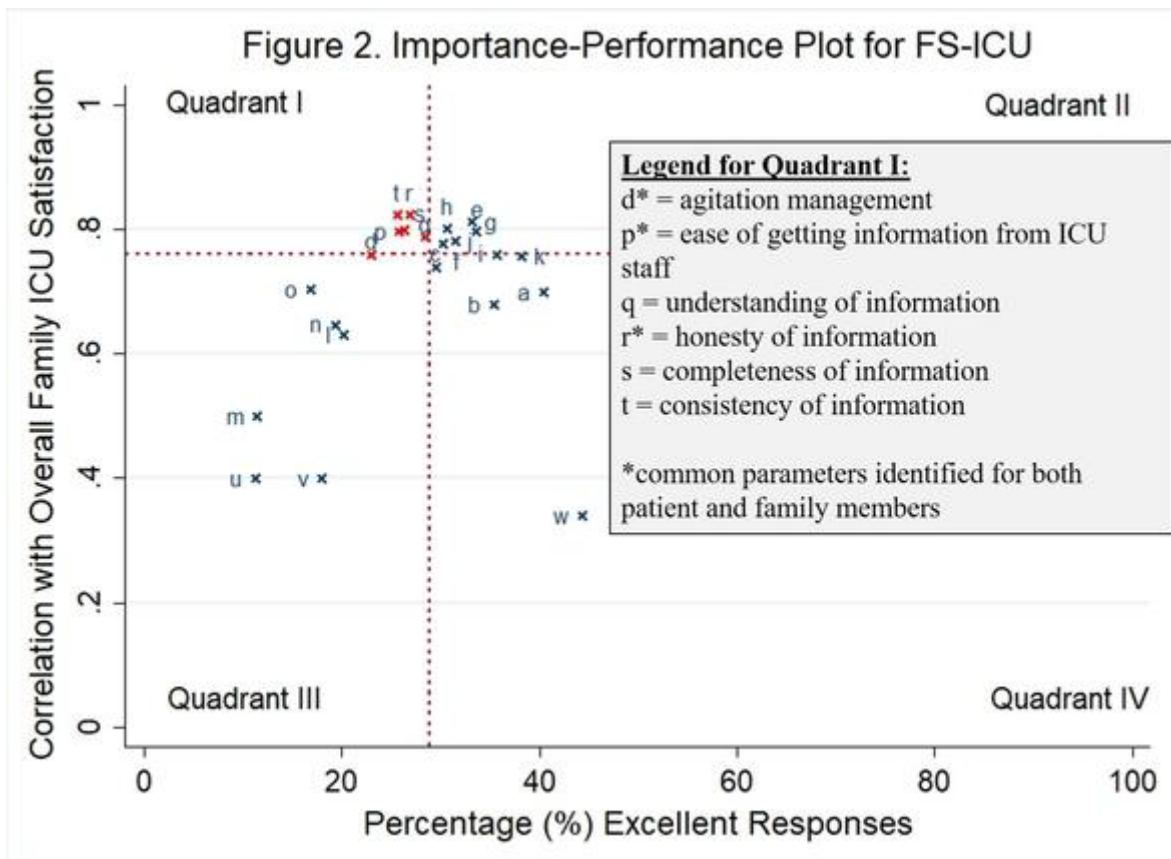
[Fig 2]

Critically ill patients and their family were generally satisfied with ICU care but they have inconsistent perspectives. Poor to moderate consistency in satisfaction scores are shown in Table 1.

Table 1. Intra-class correlation (ICC) for satisfaction levels by groups

ICU Satisfaction level	Patients Mean (SD)	Family Mean (SD)	ICC (95% CI)
Overall ICU care	72.9 (17.5)	72.0 (17.0)	.60 (.49 - .69)
Information/decision-making	70.9 (14.7)	70.4 (16.1)	.43 (.27 - .56)
Overall satisfaction	72.1 (15.1)	71.4 (15.6)	.57 (.45 - .67)

[Table 1]

CONCLUSIONS. Overall, our participants were satisfied with the quality of care in our unit but with different views. We used PS-ICU and FS-ICU scores to identify and prioritize areas for quality improvement: agitation management, ease of getting information from ICU staff and provision of honest information.

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019 - ADHERENCE WITH THE QUALITY INDICATOR "MANAGEMENT OF ANALGESIA, SEDATION AND DELIRIUM" AND ITS IMPACT ON PATIENT OUTCOME

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BACKGROUND. Quality indicators are important performance figures for the evaluation of processes in intensive care medicine. Routinely and automatically measuring these parameters allows to monitor adherence with treatment protocols. We analysed whether this standardized measurement for analgesia, sedation and delirium, as consented and published by German ICU organizations, had an

impact on patient outcome.

METHODS. Single-centre, observational, cross-sectional analysis at a European tertiary hospital. After IRB approval, anonymized data of patients treated in 2015 and 2016 on one of our intensive care units was extracted from electronic patient records. Patients with a length of ICU stay below 24 hours, more than one ICU stay during hospitalisation or incomplete records were excluded from analyses. Patients were attributed to one of three groups depending on the degree of quality indicator adherence. Group differences were assessed using the Mann-Whitney-U test, considering a p value below 0.05 statistically significant.

RESULTS. Out of 4.597 eligible patients, 1.970 met inclusion criteria and were included in analyses and attributed according to quality adherence as follows: Group A (< 90%, n=766), Group B (90-95%, n=619) and Group C (>95%, n=585). Patient characteristics are shown in Table 1. Patients with high quality indicator adherence had shorter length of stay (10 vs. 11 vs. 12 days, p=0.001), shorter time of mechanical ventilation (16 vs. 23 vs. 23 hours, p< 0.001) and lower mortality (2.9% vs. 6.6% vs. 7.4%, p=0.001, see Table 2). Adjusted for APACHE II, study endpoints are shown in Figure 1.

CONCLUSION. The continuous monitoring of quality indicators for analgesia, sedation and delirium is feasible by analysing data acquired during clinical routine. A high degree of quality indicator adherence is associated with a positive patient outcome.

	Adherence with quality indicator			
	Group A: <90% (n=766)	Group B: 90-95% (n=619)	Group C: >95% (n=585)	p value
Age	68 [57;76]	69 [60;76]	66. [56;75]	0.003
Gender (female)	274 (35.7%)	205 (33.2%)	210 (35.9%)	0.528
Type of ICU admission				<0.001
- Elective surgery	366 (48.0%)	340 (54.9%)	354 (61.6%)	
- Emergency surgery	121 (15.9%)	79 (12.8%)	58 (10.1%)	
- Medical	131 (17.2%)	95 (15.3%)	97 (16.9%)	
- Unknown	145 (19.0%)	105 (17.0%)	66 (11.5%)	
APACHE II on ICU admission	17 (11;25)	19.0 (12;26)	16 (10;24)	0.002

[Table 1]

	Adherence with quality indicator			
	Group A: <90% (n=766)	Group B: 90-94% (n=619)	Group C: >95% (n=585)	p value
Length of hospital stay [days]	10 (7;15)	11 (7;18)	12 (7;21)	0.001
Mechanical ventilation [hours]	23 (8;84)	23 (12;71)	16 (5;41)	<0.001
In-hospital mortality	57 (7.4%)	41 (6.6%)	17(2.9%)	0.001
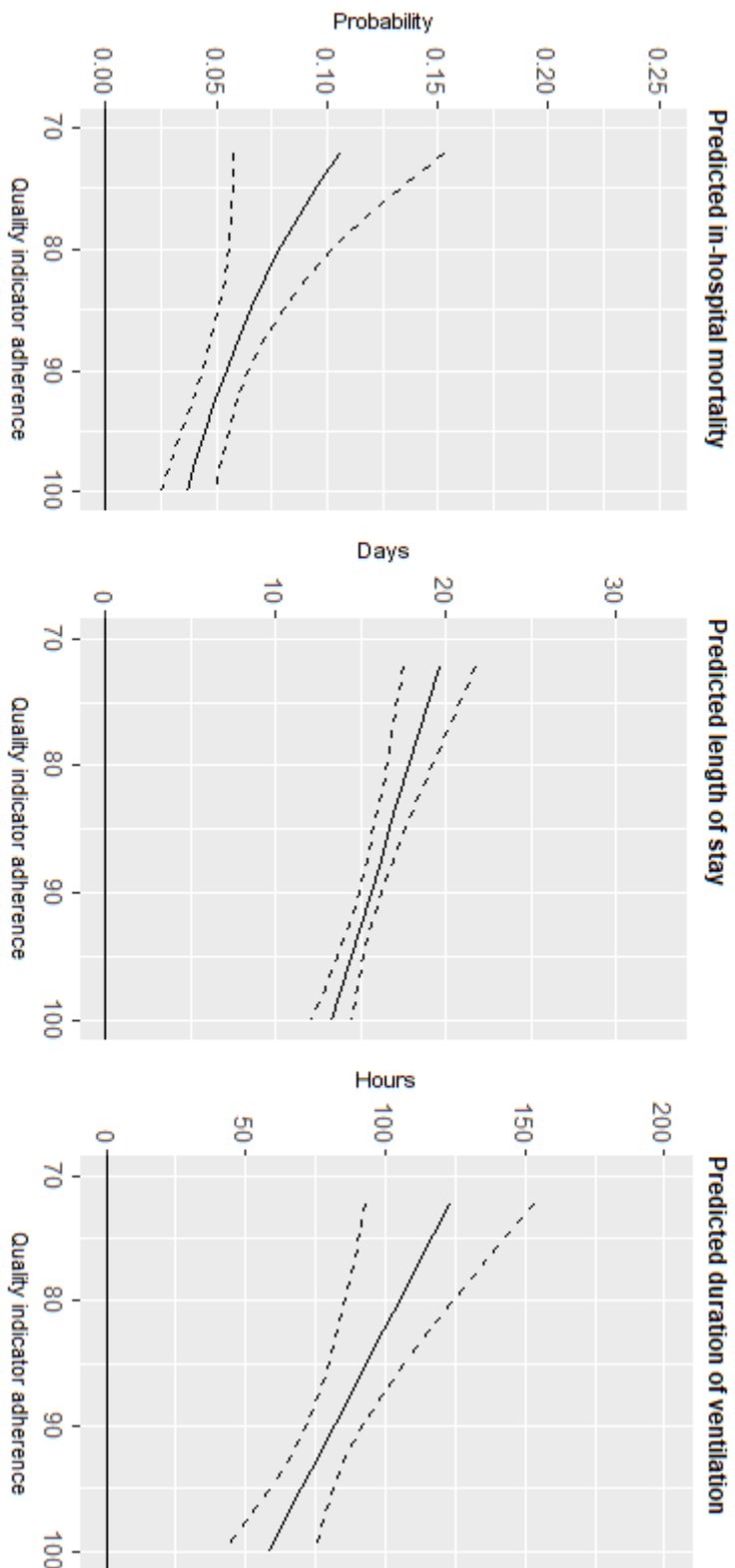
[Outcome parameters adjusted for APACHE II]

020 - PICU SERVICE AT THE LOW SET UP, IS IT ACHIEVABLE? FIVE YEARS SUDAN PEDIATRIC CARDIAC SURGERY CAMPS EXPERIENCE

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INTRODUCTION. Worldwide the incidence of congenital heart diseases (CHD) is about 8 per 1000 life born babies. The complexities of this group of congenital heart abnormalities are widely vary from simple to non-operable. The associated co-morbidities, availability of well trained personnel and technical resources are indispensable factors that have direct impact in such decision.
In developing countries only a minority of children with CHD is detected and
few benefit from surgical treatment and many don't finding the proper intervention likely due to limited medical properties. Having created six charitable camps in Sudan for treatment children with CHD diseases, we designed a study to review the outcomes, the management challenges and the PICU capacity in performing cardiac surgery or cardiac catheter interventions in low set up resources.
METHODOLOGY. We studied retrospectively all patients treated during six consecutive charitable Pediatrics cardiac surgery camps that carried out between March 2012 - May 2017 in Sudan. The epidemiological, clinical, echocardiographic and surgical data from camps mission's summary, and from the local physician's documents and referrals were collected. The 30 days post-operative outcomes within the available PICUs resources and capabilities were assessed.
RESULTS. We evaluated 400 patients. Out of the 222 patients who underwent interventions. 108 with complex defects were considered for surgery, the rest underwent cardiac catheter interventions. The mean age of interventions was 10 ± 2 years The 30-days post-operative mortality was 14/222. The most important post-surgical complications were post pericardectomy. Syndrome, bleeding and sepsis. All surviving patients remain in good clinical condition and most are asymptomatic without any medications.
DISCUSSION. The most challenging factors in performing cardiac surgery in developing countries are unavailability of the well-trained medical staff and the limited resources.
Organizing annual cardiac camps can do a lots in term of Transfer of knowledge and skills, build upon the local capacity, provide relevant life-changing interventions and sustainable longer term developments. The experience of the medical team who performs the interventions, is essential factor to get the best outcomes in low set PICU. So our medical group had been built up mission after mission (from 7 members in the first mission to 22 in the six one). The companied teaching rounds, hands-on workshops, recruiting the operating and the local medical staff during camps improved the patients´ outcomes.
CONCLUSION. Our experience through the six camps showed that the outcomes dramatically improved with the increase of the number of the expert medical team. More training and exposure of the local staff have positive impact in the pediatric critical care service and make it reasonably achievable in low set up PICU resources.

021 - ASSOCIATION OF ADMISSION EOSINOPHIL WITH INTENSIVE CARE UNIT MORTALITY: A RETROSPECTIVE ANALYSIS OF A PUBLICLY ACCESSIBLE CLINICAL DATABASE MIMIC III

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INTRODUCTION. The association between eosinophil and mortality in intensive care unit (ICU) remains controversial.
OBJECTIVES. The aim of this study is to determine whether admission percentage of eosinophils could be used to predict ICU mortality.
METHODS. We performed a large retrospective study using a modifiable data mining technique applied to the publicly available Medical Information Mart for Intensive Care III (MIMIC III) database (v1.4). A total of 27 569 patient records, consisting of 2 597 non-survivors and 24 972 survivors, were analyzed. The primary study outcome was ICU mortality.
RESULTS. The overall ICU mortality was 9.42%. The median admission percentage of eosinophils was significantly lower in non-survivors [0.20%, interquartile range (IQR) 0.00-1.00%] than survivors

[0.70%, IQR 0.20-1.80%, *P*< 0.001]. Multivariate analysis demonstrated that admission percentage of eosinophils was significantly associated with ICU mortality (odds ratio [OR] 0.86 per 1% increase, 95% confidence interval [CI] 0.83-0.89; P< 0.0001). Further analysis found a nonlinear relationship between admission percentage of eosinophils and ICU mortality. When the admission percentage of eosinophils was less than 2.4%, its level was significantly associated with ICU mortality (OR 0.73 per 1% increase, 95% CI 0.67-0.79; P< 0.0001), but no significant association was observed when it was greater than 2.4% (OR 0.97 per 1% increase, 95% CI 0.93-1.01; P=0.1746). Results were similar in subgroups but the largest differences across strata were observed for sepsis based on ICD-9 codes, with stronger inverse associations between admission percentage of eosinophils and ICU mortality among subjects with an admission percentage of eosinophils less than 2.4% (P< 0.0001 for interaction).
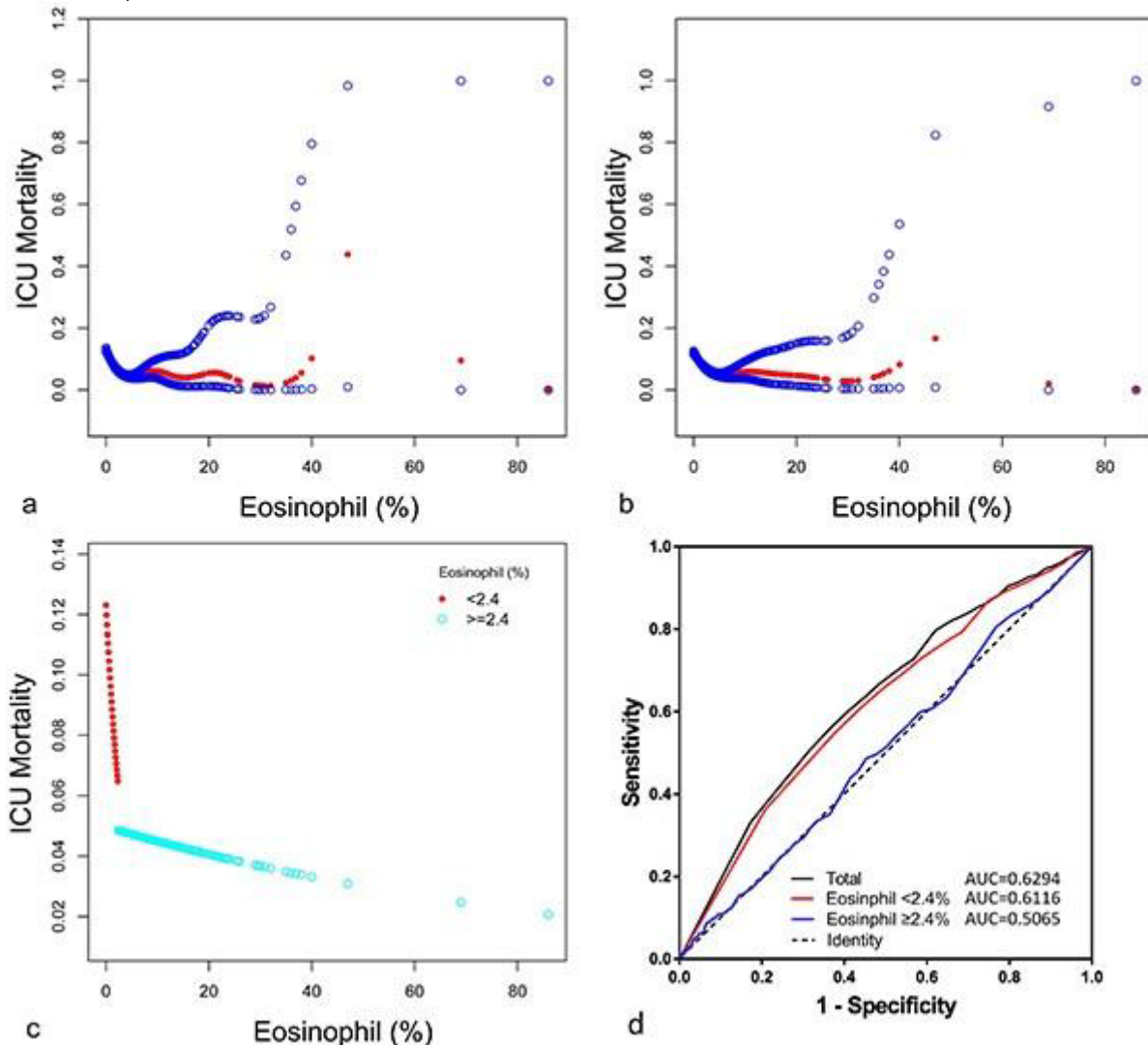
[The relationship between admission percentage of eosinophil and ICU mortality]

CONCLUSIONS. Admission percentage of eosinophils was inversely associated with ICU mortality only when it was less than 2.4%, but whether this was a causal or associational finding cannot be determined.

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022 - LACTATE RECOVERY KINETICS IN LIFE-THREATENING PEDIATRIC CRITICAL ILLNESS SUPPORTED BY EXTRACORPOREAL MEMBRANE OXYGENATION

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INTRODUCTION. Lactate clearance is prognostic in extracorporeal membrane oxygenation (ECMO)[1], but lactate kinetics could not be studied by exogenous lactate infusion[2] in this setting.
OBJECTIVES. We modelled the lactate recovery kinetics with a one compartment open model.
METHODS. 179 patients receiving ECMO support in an academic children's hospital in 2009-2013 were retrospectively reviewed. 64 patients had serial lactate measurements, by excluding insufficient samples and complicated clearance, 33 patients were included. A bi-exponential equation was fitted as described on cardiopulmonary bypass patients[3], and a lactate recovery kinetics model was modified from exercise model[4].

[Lactate recovery kinetics model]

[Lactate recovery curve]

The accumulated lactate, the rate constants of lactate appearance and elimination, and the baseline lactate production were derived.
RESULTS. The mean age was 1.7 year old (s.d.=3.9) and the mean body weight was 8.2kg (s.d.=12.8). The mean accumulated lactate at the beginning of ECMO was 5.8mmol/kg (s.d.=4.6). The mean rate constant of lactate appearance was 0.37/min (s.d.=0.59). The mean rate constant of lactate elimination was 0.0038/min (s.d.=0.0027). The baseline lactate production was 1.87mmol/kg/day (s.d.=2.35). There was an inverse linear relationship between the rate constant of lactate elimination and the blood lactate concentration at the beginning of ECMO. The rate constant of lactate appearance could be clustered into two groups.
CONCLUSIONS. In life-threatening pediatric critical illness, a significant lactate accumulated at the beginning of ECMO. Higher blood lactate concentration is correlated with lower lactate elimination rate constant. In addition to lactate already present in the body compartment, a group of patients had extra lactate appearing gradually from its production site.
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023 - OUTCOMES OF ADHERENCE WITH THE 2014 EUROPEAN GUIDELINES ON THE DIAGNOSIS AND MANAGEMENT OF HYPONATREMIA AMONG PATIENTS PRESENTING WITH PROFOUND HYPONATREMIA

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Hyponatremia is associated with high mortality and suboptimal outcomes, with a wide variance in diagnostic and therapeutic approaches among clinicians. This retrospective cohort study investigated whether adherence with the collaborative Clinical Practice Guideline on the diagnosis and management of hyponatremia of the European Society of Intensive Care Medicine, European Society of Endocrinology, and European Renal Best Practice Group published in 2014 correlated with better outcomes among patients presenting at the emergency room with profound hyponatremia. Of 78,619 adult patients seen at the emergency room in the year 2016, 2,147 (2.73%) had serum sodium concentration less than 135 mmol/L, of which 213 (9.92%) had profound hyponatremia less than 125mmol/L. Among 147 subjects included in the analysis, with a mean age of 66.8 years, 57.8% female, only 18 (12.2%) demonstrated adherence with the 2014 guidelines. Outcome comparison between adherent and non-adherent groups showed similar results in terms of sodium upon discharge (131.64±5.104 vs 131.54±5.660, p 0.960), length of hospital stay (5.61±4.828 vs 8.06±10.292, p 0.322), resolution of symptoms (66.7% vs 63.6%, p 0.636), total hospital cost (HK\$ 33,524 ± 46,058 vs HK\$ 49,978 ± 87,990, p 0.460), mortality (5.6% vs 10.9%, p 0.487) and development of osmotic demyelination syndrome (0% vs 1%, p 0.595). In conclusion, the assessment and management of profound hyponatremia in our institution was not adherent with the 2014 guidelines in most cases, with no significant difference in outcomes compared to non-adherence noted. A prospective study to assess the outcomes of consistent application of the 2014 guidelines is recommended.

024 - ICU ADMISSION PROTOCOL CONTROLLED BY INTENSIVISTS CAN REDUCE TRANSFER DELAYS FROM THE EMERGENCY DEPARTMENT IN CRITICALLY ILL PATIENTS

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INTRODUCTION. Delayed transfer of patients from the emergency department (ED) to the intensive care unit (ICU) is associated with adverse clinical outcomes. Critically-ill patients with delayed admission to the ICU had higher in-hospital mortality and increased hospital length of stay.
OBJECTIVES. We investigated the effects of an ICU admission protocol controlled by intensivists on the ED length of stay among critically-ill patients.
METHODS. We designed the ICU admission protocol to reduce the ED length of stay in critically-ill patients. Full-time intensivists determined ICU admission priorities based on the severity of illness. Data were gathered from patients who were admitted from the ED to the ICU between April 1, 2016, and November 30, 2016. We retrospectively analyzed the clinical data and compared the ED length of stay between patients admitted from the ED to the ICU before and after intervention.
RESULTS. We included 292 patients, 120 and 172 of whom were admitted before and after application of the ICU admission protocol, respectively. The demographic characteristics did not differ significantly between the groups. After intervention, the overall ED length of stay decreased significantly from 1045.5 (425.3 - 1665.3) min to 392.0 (279.3 - 686.8) min (p < 0.001). ICU length of stay also significantly decreased from 6.0 (4.0 - 11.8) days to 5.0 (3.0 - 10.0) days (p = 0.015).
CONCLUSIONS. Our findings suggest that introduction of the ICU admission protocol controlled by intensivists successfully decreased the ED length of stay and ICU length of stay among critically-ill patients at our institution.
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026 - STATIN AND LONG-TERM SURVIVAL AND MAJOR EVENTS IN THE SURVIVED FIRST-EPISODE SEPSIS PATIENTS: POPULATION-BASED COHORT STUDY

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INTRODUCTION. Most sepsis patients died during their first episode and the long-term survival rate after discharge was quite low. No definite medication was proven to improve the long-term outcome and prevent the post-discharge comorbidities.
OBJECTIVES. To examine the benefit of statins on the long-term prognosis of survived first-episode sepsis patients and to determine whether its use help prevent the comorbidities after discharge.
METHODS. We used the nationwide claims database to retrieve the longitudinal cohort information of sepsis patients from 1999 to 2013. The patients who survived the first-episode of sepsis and had a statin use of >30 cumulative defined daily dose (cDDD) were defined as the study cohort. A total of 220,082 patients with the first episode of sepsis were initially included and only 134,448 (61.09%) survived to discharge. After propensity score matching of 1:5, a total of 7,356 and 36,780 survived patients were retrieved as the study and comparison cohort, respectively.
The main outcome was the long-term survival after sepsis between the statin user and non-users. The second outcomes were the incidence of comorbidities including gastro-intestinal (GI) bleeding, 2.ischemic stroke, 3.Intra-cranial hemorrhage (ICH), and 4.acute myocardial infarction (AMI) in the patients with and without statin use. Hazard ratios (HRs) with 95% confidence interval (95% CI) were calculated using the Cox proportional hazards regression model to evaluate the potential protective effect of statins in the user and non-users and in different cumulative statin dose.
RESULTS. The statin user had an adjusted HR of 0.29 (0.27-0.31) in long-term mortality after adjusting for potential confounders. For statin users with a cDDDs of 30-180, 180-365, and >365, the adjusted HRs were 0.32, 0.22, and 0.16, respectively, (95% CI, 0.30-0.34, 0.19-0.26, and 0.12-0.23, respectively) compared with non-statin users, in a dose-response protective effect (P for trend < .0001) for long-term mortality. The similar phenomenon was also observed in the complications of GI bleeding and ICH. In the sensitivity analysis, after excluding the survived patients who died within one and three months post-discharge, the adjusted HR remained significant (0.35, 95% CI 0.32-0.37 and 0.42, 95% CI 0.39-0.45, respectively).
CONCLUSIONS. Statin use may improve the long-term outcome of survived post-sepsis patients and reduce the incidence of complications of GI bleeding and ICH.

027 - EVALUATION OF PREVALENCE AND INTENSITY OF PAIN IN SEDATED AND VENTILATED PATIENTS USING CRITICAL CARE PAIN OBSERVATION TOOL (CPOT) IN A MIXED MEDICAL-SURGICAL ICU IN A TERTIARY CANCER CARE CENTRE

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INTRODUCTION. Unrelieved pain in critically ill patients can cause increased sympathetic activity, ventilator dyssynchrony, and cardiovascular events. Mechanically ventilated patients may be unable to communicate having pain, due to sedation or illness, making pain assessment using conventional scales difficult. Hence recent guidelines[1] recommend pain assessment using validated scores like Critical Care Pain observation tool (CPOT) in ICU. We wanted to assess whether using CPOT could unmask some patients in pain, while receiving current pain management strategies in our ICU and result in better pain management.
OBJECTIVES. To assess pain using CPOT, in patients managed using the existing pain management protocols in ICU and to evaluate whether the use of CPOT to titrate pain medications can result in better pain management.
METHODS. The prospective study was conducted in adult, sedated, ventilated patients in a mixed medical-surgical ICU. Pain was assessed using CPOT in each patient once a day around the same time, independently by a trained medical study investigator, a trained paramedical staff and any untrained medical ICU staff. Kappa statistics was used to measure the agreement in baseline scores between the three individuals. Patient was considered to be in pain if the CPOT was scored above 2

by the trained medical study investigator and a rescue bolus injection of 50 mcg Fentanyl was given. The score was recalculated after 10 minutes to check for pain relief, independently by the trained medical study investigator and the trained paramedical staff and compared using Kappa statistics to check for scoring bias after giving analgesic.

RESULTS. In 139 patients 300 baselines CPOT observations were made. The CPOT score was more than 2 in 30% baseline observations in17% patients. After giving analgesic there was a decrement of CPOT by 2 or more points in 97% of the observations, implying that the high CPOT score was due to pain.
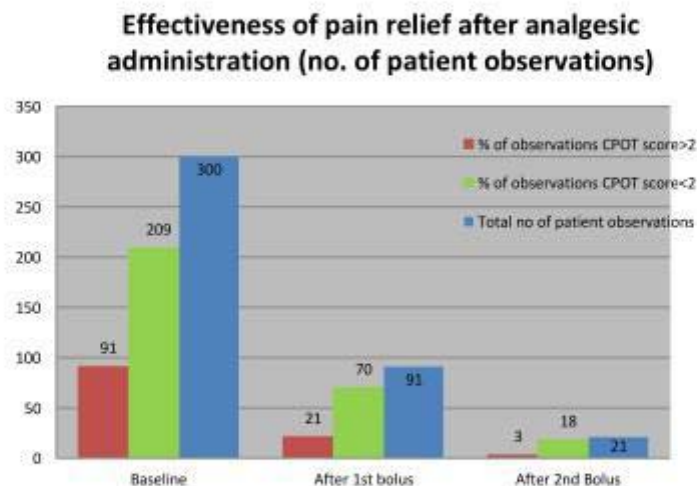
[*Effectiveness of pain relief after analgesic administration*]
There was good inter-observer agreement in baseline scores between trained medical study Investigator and the trained paramedical staff (Kappa value was 0.6) while it was moderate with the untrained medical staff (Kappa value 0.329).

CONCLUSIONS. Significant number of patients in our ICU are in pain despite using current pain management strategies. The use of CPOT helped unmask pain in 30% patients and helped in effectively titrating pain medications resulting in better pain management.

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028 - MUSCLE STRENGTH OF POST-ICU SURVIVORS

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INTRODUCTION. Due to multiple factors, peripheral muscle strength can be severely compromised in critically ill patients during ICU admission, persistindo nos sobreviventes após a alta hospitalar.
OBJECTIVE. To evaluate the muscular strength of critically ill patients at ICU discharge, evaluating related factors (particularly the admission etiology - neurological and non-neurological).

METHODS. Retrospective cohort study with adult patients admitted to the general ICU from a University Hospital, from January to December 2016, who were discharged alive. Patients were divided into two groups regarding the cause of admission: G1=neurological cause and G2=non-neurological. The evaluation of the muscular strength of lower limbs (LL) was by the MRC (Medical Research Council) and the upper limbs (UL) by palmar grip using dynamometry. The tests were performed on the day of ICU discharge.

RESULTS. It were included 49 patients (G1=30, G2=19), with no diferences in male gender (47% and 53%) or mean age (46.5 and 48.5 y). The APACHE II and initial SOFA scores were 27.0 versus 19.5 (p = 0.007) and 10.0 versus 7.0 (p = 0.003). The duration of sedation (66.2 versus 41.6 h) and mechanical ventilation (MV) (146.1 versus 95.4 h) were higher in G1 group. The ICU (11.4 versus 9.1 days) and hospital (27.7 versus 28.5 d) length of stay were not different.

UL dynamometry (palmar) of G1 was 20.8 (ICU discharge) and 25.6 (3 months after); em G2 23.0 and 26.3. The LL-MRC was 26.4 (discharge) and 25.4 (3 months) (G1), and 23.4 and 22.0 (G2) - Figure 1. Figure 1. Evolution of muscle strength of upper limbs (UL-Dyna) and lower limbs (LL-MRC) at ICU discharge and three months after
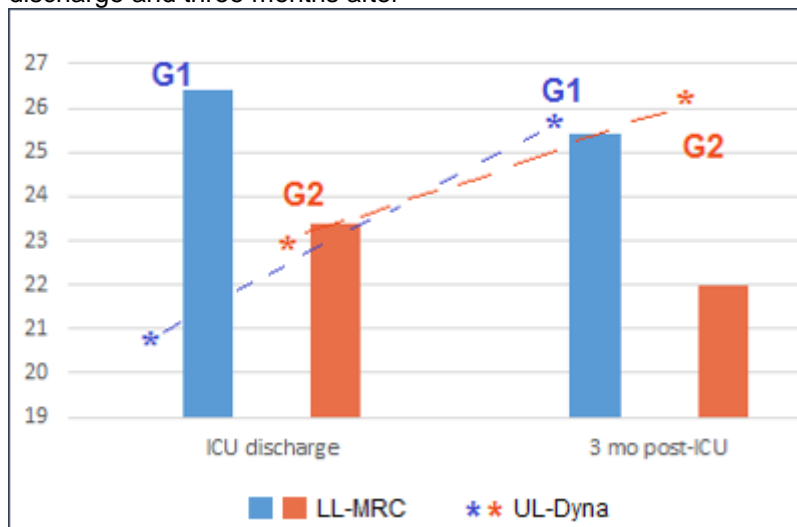
[Figure 1]

CONCLUSION. No significant difference was found between the neurological or non-neurological groups in relation to the muscular strength at discharge from the ICU or 3 months after, despite a trend towards a greater recovery of LL. However, both at the ICU discharge and 3 months later, a correlation between the strength of LL and UL remains.

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029 - PRELIMINARY RESULT OF COMPARISON BETWEEN DEXMEDETOMIDINE AND PROPOFOL FOR POSTOPERATIVE SEDATION OF PATIENTS IN THE INTENSIVE CARE UNIT AFTER ABDOMINAL SURGERY: MICROCIRCULATION, KIDNEY INJURY, AND INTESTINAL INJURY

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INTRODUCTION. Patients in surgical intensive care unit (SICU) need sedation. According to current guidelines(1), dexmedetomidine and propofol are suggested for SICU sedation. In our previous animal study(2), dexmedetomidine has protective effect on intestinal microcirculation induced by surgical stress and pain. There is no clinical study comparing propofol and dexmedetomidine used for sedation have different effect on microcirculation after major abdominal surgery.

OBJECTIVES. To compare dexmedetomidine versus propofol on sublingual microcirculation and clinical outcomes in SICU patients received major abdominal surgery.

METHODS. This is a randomized clinical trial(NCT02874768). Patients who received major abdominal

surgery and need sedation in post-operative ICU were enrolled and randomly divided into two groups: dexmedetomidine and propofol groups. Hemodynamics were continuously monitored, and the microcirculation was examined by using Cytocam at preoperative baseline, postoperative 0, 6, and 24h. The following parameters were investigated: total small vessel density(TSVD), perfused small vessel density(PVSD), microvascular flow index(MFI), and heterogeneity index(HI). The enzyme-linked immunosorbent assays were used to measure serum level of endocan, diamine oxidase(DAO), and neutrophil gelatinase-associated lipocalin (NGAL) at postoperative 0, and 24h).

RESULTS. 34 patients were analyzed in this preliminary result. There was a trend that heart rates were non-significantly lower in dexmedetomidine group ($p=0.11$)(Graph 1). Mean arterial pressure, cardiac index, and microcirculatory parameters did not differ significantly between the two groups. Serum level of endocan, DAO, and NGAL of first 14 patients were also analyzed. At postoperative 24h, there is a trend that DAO were non-significantly lower in the dexmedetomidine group than the propofol group (6.9 U/ml vs. 7.2 U/ml, $p=0.16$).
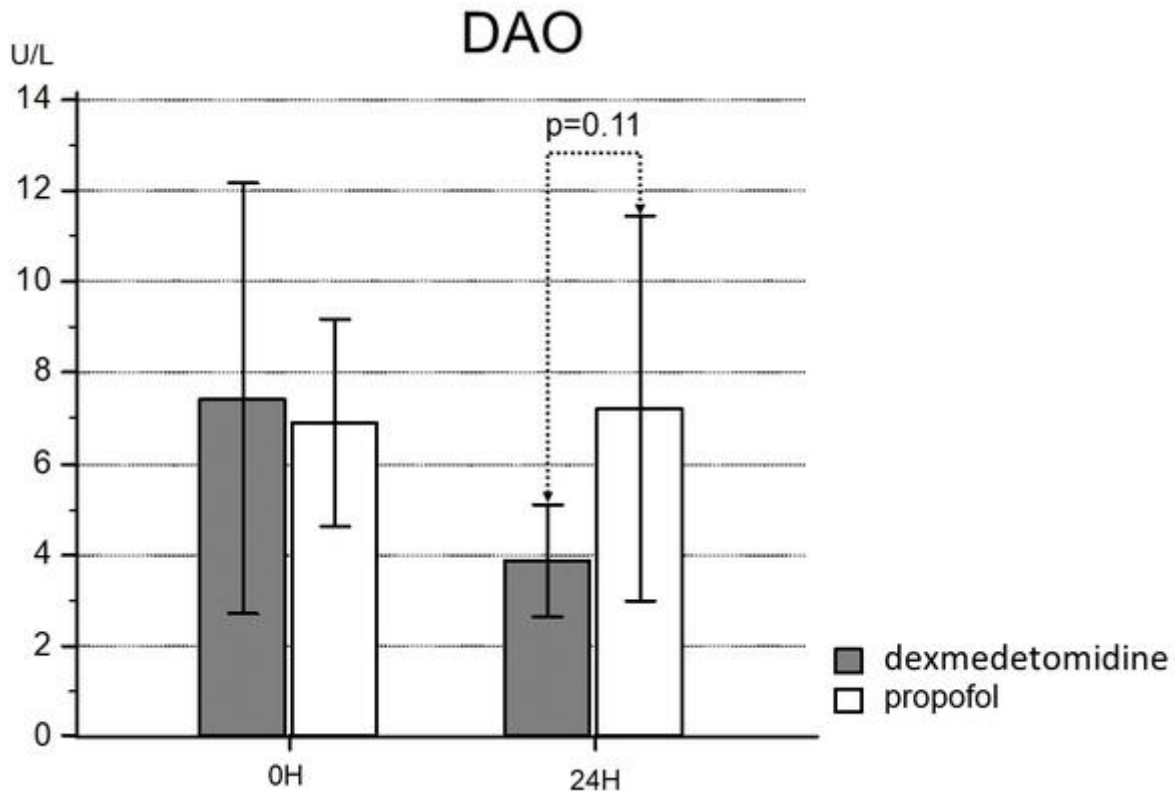
[Serum levels of DAO in two groups at post-operative 0H, and 24H]

CONCLUSIONS. This preliminary analysis showed that microcirculation did not differ significantly between dexmedetomidine and propofol. There is a trend that intestinal injury was minor in the dexmedetomidine group than in the propofol group.

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030 - IN HOSPITAL CARDIOPULMONARY ARREST OUTSIDE THE INTENSIVE CARE UNITS - A RETROSPECTIVE ANALYSIS OF CLINICAL PROFILE AND OUTCOMES IN A TERTIARY CARE HOSPITAL

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BACKGROUND. The study was undertaken in view of alarming morbidity and mortality in the patients who suffered cardiopulmonary arrest in Non ICU settings.

Aims and **OBJECTIVES.** The aim of the study was to analyze the clinical profile and outcome of the patients who suffered cardiopulmonary arrest in Non ICU settings like wards, dialysis units, endoscopy rooms etc.

METHODOLOGY. The study was done Apollo hospital, Hyderabad. It's a retrospective observational study, period being 1 year from Nov 2016 to Nov 2017.

Total Number of Patients	52
Percentage of Male Patients	57.69
Percentage of Female Patients	42.3
Mean age of Patient group	58.13 years
Mean age of Male Patients	60.3 years
Mean age of Female Patients	55.18 years

[Patient characteristics]

| Mean Time to start Cardiopulmonary Resuscitation	1.52 Minutes
Mean Response Time of Code blue team	3.35 Minutes
Mean Time to shift the patient to ICU	23.36 Minutes
Mean Time of CPR	13 Minutes
Percentage of Patients who achieved ROSC	48%
Percentage of Patients who were discharged alive from ICU	19.23%

[Patient outcomes]

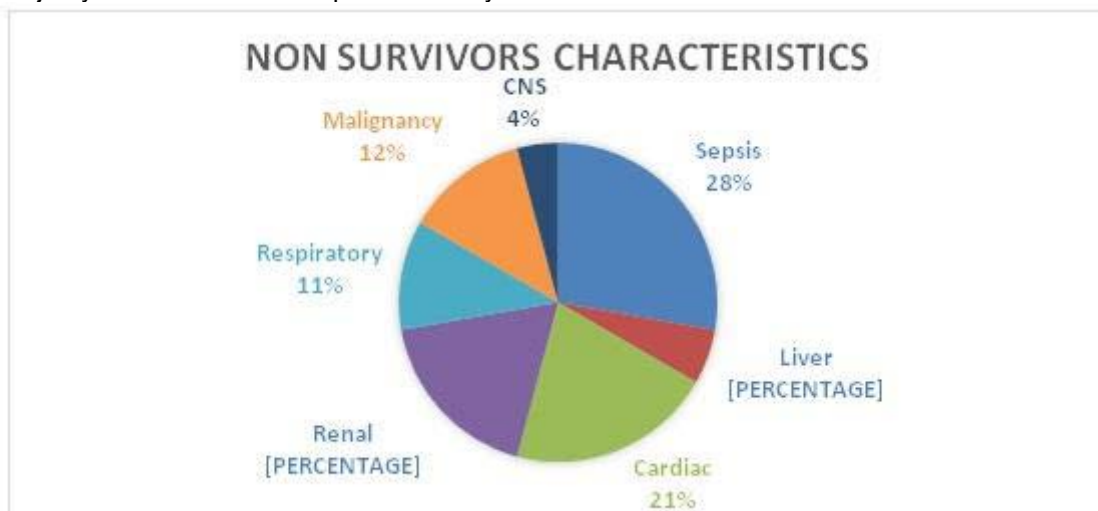|	Survivors	Non-Survivors
Percentage of Males	60	57.15
Percentage of Females	40	42.85
Mean Code Blue Response time	2.9 Minutes	16.4 Minutes
Mean Time to shift the patient to ICU	22.9	23.46
Mean age of Patient group	64.4 years	56.4 years

[Survivor vs non survivor characteristics]

CONCLUSIONS. Most of the arrests were during the 8AM to 2PM.

TIME OF CARDIOPULMONARY ARREST

8 p.m - 2 a.m
11%

2 a.m - 8 a.m
23%

2 p.m - 8 p.m
29%

8 a.m - 2 p.m
37%
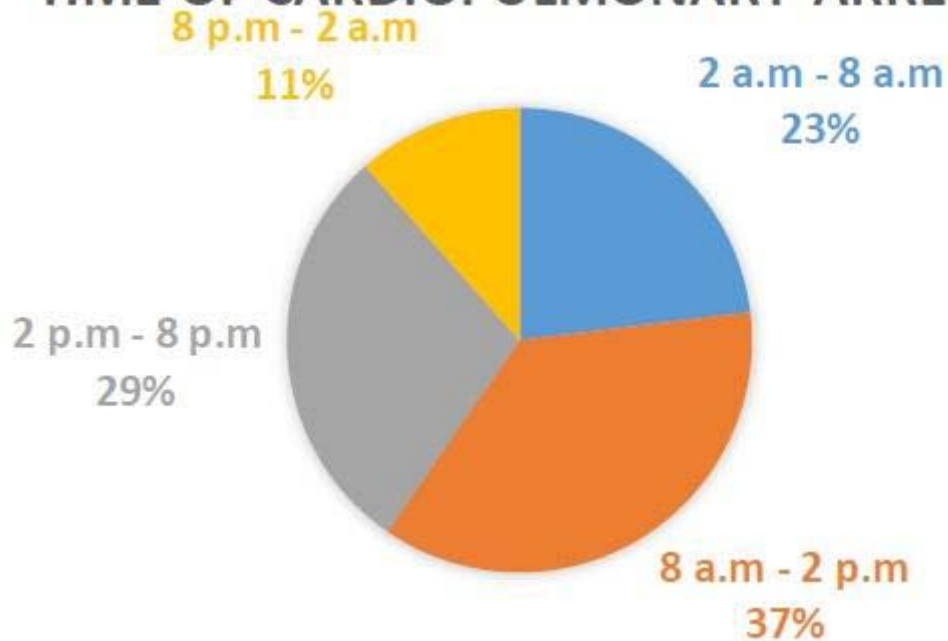
[Time of cardiopulmonary arrest]

Patients who had Cardiac, renal disease and sepsis as a primary diagnosis had more mortality. Majority had non shockable peri arrest rhythm.

NON SURVIVORS CHARACTERISTICS

CNS 4%

Malignancy 12%

Sepsis 28%

Respiratory 11%

Liver [PERCENTAGE]

Renal [PERCENTAGE]

Cardiac 21%

[nonsurvivor characteristics]

Upto 48% of patients had successful initial resuscitation which shows the importance of code blue team and short response time.

PERIARREST RHYTHM

Shockable 13%

Non Shockable 87%
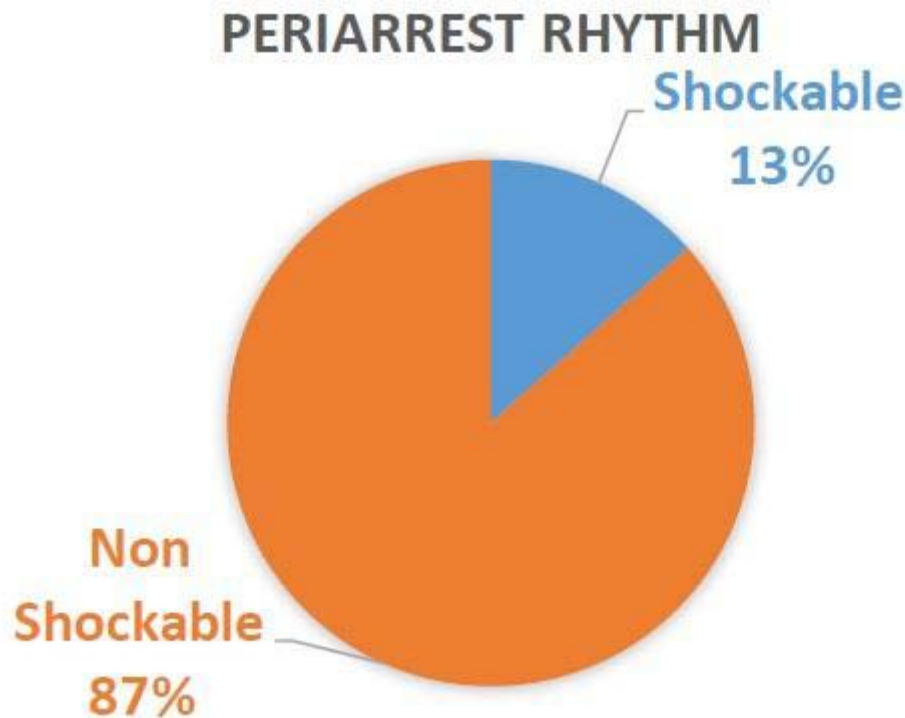
[peri arrest rhythms]

Out of 25 patients, only 40 % could be discharged alive from ICU which shows the importance of good intensive care of post cardiac arrest patients.
The study impresses upon the need for further studies in avoiding the cardiopulmonary arrest in non ICU settings and to improve the outcome of such patients.

031 - NEW PERSPECTIVES ON CRITICALLY ILL CANCER PATIENTS: ADMISSIONS TO A POLYVALENT INTENSIVE CARE UNIT

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INTRODUCTION. Recent medical advances have significantly improved long-term survival of patients with solid tumors, therefore the number of those requiring intensive care unit (ICU) support is rising[1]. Nearly 15% of ICU beds are currently occupied by cancer patients[1,2] and their survival is now above 70%[1], similar to the general population[2]. The decision to admit a critically ill cancer patient in the ICU remains challenging, as guidelines do not make solid recommendations[3] and triage criteria have shown poor reliability[1]. Therefore, accuracy in the estimation of ICU (short-term) and oncological (long-term) prognosis is essential when setting the goals of therapy[2].
OBJECTIVE. Evaluate the accuracy of cancer patient's admission and subsequent outcomes.
METHODS. Retrospective analysis of patients with solid tumors and general population admitted to a Portuguese polyvalent ICU in 2015 and 2016 was performed. Patients with ICU stay inferior to 24 hours after elective surgery were excluded.
RESULTS. There were 819 admissions to the ICU by 774 patients. The majority of cancer patients had advanced stage disease (III or IV 57%) but 86% had an ECOG performance status lower than 2. The most frequent type of cancer was gastrointestinal (31%) and the main cause of admission was post-operative vigilance (26%). Cancer patients had significantly inferior APACHE II (16.1 vs 20.4; *p< 0.01*) and SAPS II scores (36.8 vs 44.8; *p=0.01*). Invasive mechanical ventilation was used in 71% of patients (median 6 days; [3-12]). Median ICU stay was 5 days [3-13]. The mortality rate in ICU was 23% (n=192) and the overall 6-month survival was 80.5%. There were no statistically significant

differences between cancer and non-cancer patients regarding duration of ICU stay, invasive ventilation, ICU mortality rate and 6-month overall survival rate.

CONCLUSIONS. This study supports that ICU and short-term survival of critically ill cancer patients depends mainly from the acute disease. No differences in ICU mortality, nor in overall 6-month survival were seen. Cancer patients had similar duration of mechanical ventilation and ICU stay. Nevertheless, cancer patients had lower severity scores at admission.

Recent literature focuses mainly on ICU mortality rate, as studies regarding long-term survival after ICU discharge remain controversial. These results show the need to review the ICU admission criteria for cancer patients and further cooperation between intensivists and oncologists, to ensure adequate care in each clinical situation and to improve long-term survival of these patients.

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	Cancer patients n=64 (8.3%)	General population n= 710 (91.7%)
Admissions n (%)	69 (8.4)	750 (91.6)
Age (years) median [IQR]	58 [51-70]	65 [51-76]
Sex (Male) n (%)	46 (71.9)	431 (60.7)

[Table 1 - Descriptive analysis]

032 - GROUP-MEETINGS AFTER CRITICAL ILLNESS - GIVING AND RECEIVING STRENGTH

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INTRODUCTION. An increasing number of intensive care patients are surviving critical illness, but many develop mental, cognitive and physical impairments after discharge. Adapting to a new life situation, often with major challenges, implies the need of support. Therefore, it is important to develop interventions aimed at promoting recovery.

OBJECTIVE. The aim was to describe former intensive care patients´ feelings of sharing their experience of critical illness with other former patients.

METHOD. Former intensive care patients (n=17) participated in group meetings and wrote about their thoughts in a notebook after each group meeting. To deepen the understanding of the former patients' experience 11 of the former patients were interviewed. The notes in the notebooks and the interviews were analyzed using qualitative content analysis.

Findings: Meeting others revealed to the former patients new dimensions of being critically ill, and they both gave and received strength from each other. The meetings were meaningful as they gained insight into other patients' lives, and realized what it meant to survive intensive care.

CONCLUSIONS. The group meetings meant sharing experiences and understanding the process of survival after critical illness. Giving and receiving strength from others helped the participants to go further.

KEYWORDS. Content analysis, Critical care nursing, Critical illness, Group meetings, Intensive care rehabilitation.

Implications for clinical practice.

- Group meetings help former intensive care patients to understand what it means to survive intensive care.
- Sharing experiences with others is one way to both give and receive strength.

Individuals felt aided in their battle to recover by the reactions of the other patients

What is known about this topic:

- Surviving intensive care sometimes means that the patient needs to adapt to a new life situation, often with major challenges.
- There is limited evidence on follow-up interventions for former intensive care patients.

What this study adds:

- Group meetings help former intensive care patients to understand what it means to survive intensive care.
- Sharing experiences with others is one way to both give and receive strength
- Individuals felt aided in their battle to recover by the reactions of the other patients