Icu In Hospital

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ABSTRACT: We aimed to construct a mortality prediction model using the random forest(RF) algorithm for acute kidney injury (AK) patients in the intensive care unit (ICU), and compared its performance with that of two other machine learning models and the customized simplified acute physiology score (SAPS) II model.

KEYWORDS: beds, hospitals, intensive care units, united status.

I. INDRODUCTION:

Effective and rational usage of antibiotics in ICUs is important for prevention of development of antibiotic resistance.

Patients have strong emotional reactions prevent equipment dislodgement and providing safe working environment for themselves.

The treatment is directly associated with the degree of certainty in diagnosis.

Technological and therapeutic development in intensive care medicine in recent years, along increased life experience.

II. REVIEW OF LITERATURE:

YEAR	TITLE AND YEAR PUBLISHED	AUTHOR	FINDING
2011	Hospital-Level Changes in Adult ICU Bed Supply in the United States(2011)	▪ David J. Wallace, ▪ M.Kahn ▪ W. Seymour	▪ Increasingly, intensive care bed expansion in the united states is occurring in larger hospitals and teaching centers, particularly following a year with high ICU occupancy. ▪ Although the number of intensive care beds in the united states is increasing, little is known about the hospitals responsible for this growth. We south to better characterize national growth in intensive care beds by identifying hospitals-level factors associated with increasing numbers of intensive care beds over time.

2012	The Clinical Utility of the Functional Status Score for the Intensive Care Unit (FSS-ICU) at a Long-Term Acute Care Hospital: A Prospective Cohort Study.(2012)	▪ Aaron Thrush ▪ Melanie Rozek ▪ Jennifer L. Dekerlegand	▪ Measuring outcomes is now considered the standard of care for physical therapist practice and is essential to document the effectiveness of physical therapy interventions. As yet, outcome measures have not been developed specifically for patients with chronic illness to measure function in a long-term acute care hospital setting.
2013	Mortality after hospital discharge in ICU patients(2013)	▪ Ameen Abu-Hanna, ▪ Evert de Jonge, ▪ Dylan W. de Lange	▪ To assess the mortality risk of intensive care (ICU) patients after hospital discharge and compare it to mortality of the general Dutch population ▪ In the general ICU population the after mortality after hospital is substantial and much higher than the weighted average is substantial and much high than the weighted average of gender and age specific death ricks of the general Dutch population. ▪ In hospital mortality understimates the true mortality of ICU patients as the mortality in the first months after hospital discharge is substantial. Most ICU patients still have an increased mortality risk in the subsequent years after discharge comparent to the general Dutch population. The mortality after hospital discharge differs widely between ICU subgroups. Future studies should focus on the analysis of mortality after hospital discharge that is attributable to the former ICU admission.

2014	Hospital-Level Variation in ICU Admission and Critical Care Procedure For PatientsHospitalized For Pulmonary Embolism(2014)	▪ Andrew J. Admon ▪ Christoper W. Seymour ▪ Hayley B. Gershengom	▪ These findings suggest that high –use hospitals may provide an effective target for efforts seeking to increase health-care value through the development of specific ICU admission criteria for PE or the consideration of alternative, less resource-intensive levels of care, such as telemetry or intermediate care.
2016	Prevalence of ESBL in Escherichia Coli Isolates Among ICU Patients in a Tertiary Care Hospital(2016)	▪ DHRUBA KUMAR ▪ JAGADANANDA ▪ JENA ▪ BANDANA MALLICK	▪ Resistance to common antibiotics is a matter of grave concern in treating infections in hospital settings especially in intensive care units (ICUs). ▪ The finding of this study emphasizes the need for a continuous surveillance in the ICUs to detect the resistant strains, strict guidelines for the antibiotic therapy and the implementation infection control measures to reduce the increasing burden of infection resistance.
2018	Microbial cause of ICU-acquired pneumonia: hospital -acquired pneumonia versus ventilator-associated pneumonia(2018)	▪ Charles-Edouard Luyl ▪ Guillaume Hekimian ▪ Desponia Koulenti ▪ Jean Chastre.	▪ In the future, molecular assays directly applicable to respiratory specimen testing might allow to rapidly determine, Which pathogen is responsible for infection and thus greatly facilitate the selection of the initial regimen, while avoiding using broad-spectrum antibiotics if no MDR pathogens are identified from a deep respiratory tract sample.
2018	Renal Replacement Therapy Modality in the ICU and Renal Recovery at Hospital Discharge(2018)	▪ Martin Bonnassieux ▪ Antoine Duclos ▪ Antoine G. Schneider	▪ The aim of this study was to assess the influence of initial renal replacement therapy modality on renal recovery at hospital discharge.

		▪ Charlotte Cancalon	▪ In this large retrospective study, intermittent hemodialysis as an initial modality was associated with lower renal recovery at hospital discharge among patients with acute kidney injury, although the difference seems some clinically limited.
2019	Predicting in-hospital mortality of patients with acute kidney injury in the ICU using random forest model(2019)	▪ Ke Lin ▪ Yonghua Hu ▪ Guilan Kong	▪ We aimed to construct a mortality prediction model using the random forest (RF) algorithm for acute kidney injury(AKI) patients in the intensive care unit(ICU)and compared its performance with that of two other machine learning models and the customized simplified acute physiology score (SAPS) II model.

Research gap:
The feedback of training of nurses was done in various methods but not particularly in Madurai, Tamilnadu, India hence we have catered to it.

Data collection:
We used a closed ended questionnaire to collect data. Data collection was done in person in hospitals in Madurai-Tamil Nadu. The nurses were ever co-operative.
We gave more than 120 questionnaires and received valid questions with which we did the analysis.

III. DATA ANALYSIS AND CONCLUSION:
We use excel sheet to analysis data and we use simple random sampling to pick data.
 Convergent and Discriminant was proved.

The way your doctor involves other doctors and caregivers in your care when needed-4.78125 scores high prooving the quality of service in ICU.
Ease of making appointment for checkups (physical exams, well visits, routine follow-up appointments)-4.21875 also is excellent
question 10:

 Our offices convenience (location, parking, hours, office layout)-4.21875, meaning location is accessible by patients.
Waiting time in our office-1.35 is a negative question scoring low means has a positive feedback on waiting time

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APPENDIX

TRAINEE NAME:		TRAINING CENTRE
JOB ROLE ENROLLED:		BATCH ID
TRAINESS NAME:		CENTRE ID

ABOUT TRAINER AND TRAINING:

ITEMS	STRONGLY DISAGREE	DISAGREE	NEUTRAL	AGREE	STRONGLY AGREE
1.Ease of making appointment for checkups (physical exams, well visits, routine follow-up appointments?					
2. Ease of making appointments for sickness?					
3. Ease in contacting your doctors when our office is closed (nights and weekends)?					
4.Ease in speaking directly with your doctors by tele-phone when you call during office hours?					
5.The time takes someone from our office to respon when you call the office with an					

urgent problem?					
6.Waithing time in our office?					
7. Ease in obtaining follow-up information and care (test results, medicines, care , instructions)?					
8.Overall medical care at your doctors office?					
9.Our offices appearance?					
10.Our offices convenience (location, parking, hours,office layour)?					
11.The way we teach you about improving your health?					
12.The your doctors involves other doctors and caregivers in your care when needed?					