UTILITY OF THE THERAPEUTIC COMPLEXITY INDEX ADAPTED TO CRITICALLY ILL PATIENTS AS A METHOD OF STRATIFICATION FOR PHARMACEUTICAL CARE

5PSQ-005

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BACKGROUND AND IMPORTANCE

Intensive Care Unit workload pharmacyst providing ICU clinical services has not been optimized.

Aim and objectives → To measure the complexity of medication regimens in adult ICU and analyze the utility of this indicator as a method for patient stratification in pharmaceutical care for critically ill patients.

MATERIAL AND METHODS

- Observational, descriptive, prospective study conducted at a third-level hospital.

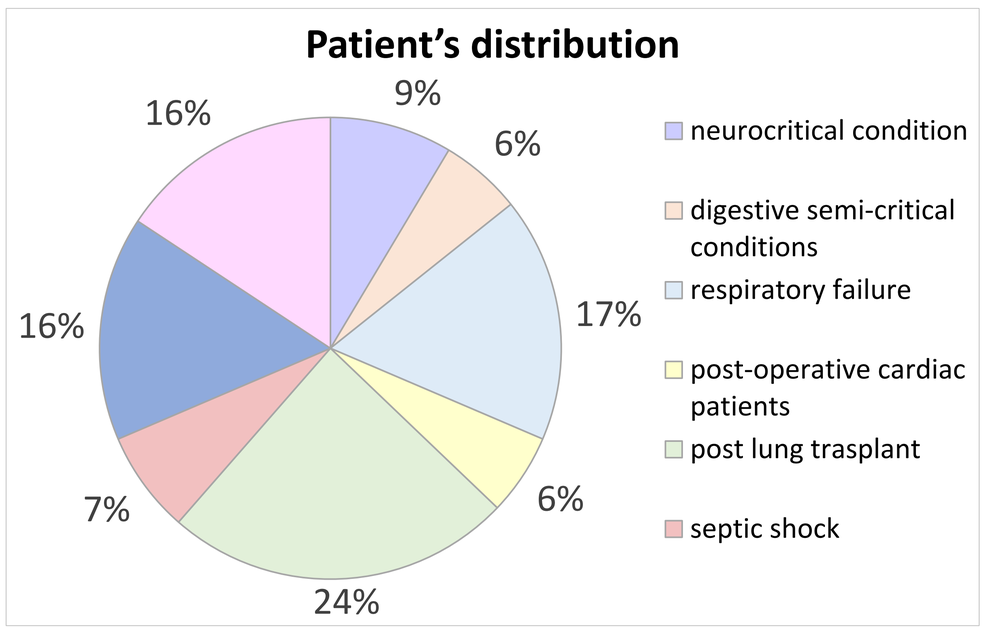
cross-sectional approach → Review treatment → **measure the MRC-ICU** (Medication Regimen Complexity Intensive Care Unit Index)

- Demographic variables and 23 items related to each patient's treatment and clinical conditions were collected, then these items were scored as defined in *table 2 of Am J Health Syst Pharm. 2019;76(Supplement 2):S34-S40.*
- The MRC-ICU was calculated by summing the total score of the 23 items

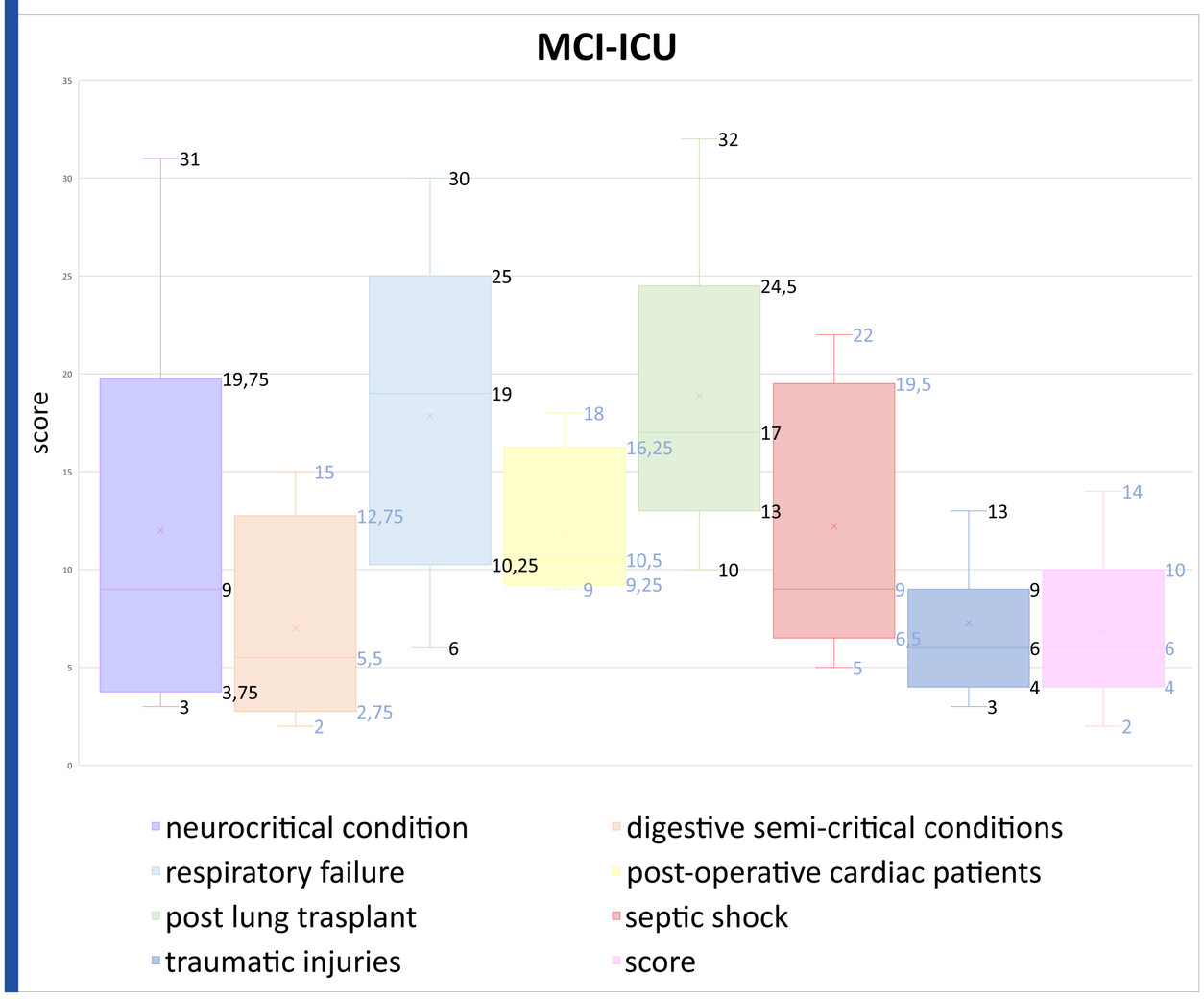
Medications Assessed by the MRC-ICU Scoring Tool			
High-Priority Medications		**ICU Medications**	
Aminoglycosides	3p	Neuromuscular blockade	2p
Amphotericin B and liposomal amphotericin B	1p	Continuous infusions (excludes those listed elsewhere)	1p
Antiarrhythmics	1p	**Total Parenteral Nutrition**	
Anticoagulants	1p	Managed by nonpharmacist service	1p
Anticonvulsants	3p	Managed by specialist pharmacist	3p
Argatroban	2p	**ICU Prophylaxis and FAST HUGS BID**	
Azole antifungals	2p	Thromboembolic prophylaxis	1p
Blood products	2p	Stress ulcer prophylaxis	1p
Chemotherapy (active inpatient)	3p	Glycemic control	1p
Clozapine	3p	Bowel regimen	1p
Digoxin	3p	Chlorhexidine	1p
Ganciclovir/valganciclovir	1p	**Analgesia and Sedation**	
Hyperosmolar fluids (hypertonic sodium chloride mannitol)	1p	Opioids and sedatives	1p
Immunosuppressants (cyclosporine, sirolimus, tacrolimus)	3p	Continuous infusion opioids and sedatives	2p
Lidocaine (continuous infusion)	2p	**Antimicrobial Agents**	
Lithium	3p	Antimicrobials	1p
Prostacyclins	2p	Restricted antimicrobials	2p
Theophylline	3p	**Devices**	
Therapeutic heparins	2p	Dialysis	2p
Vancomycin (i.v.)	3p	ECMO	2p
warfarin	3p	Intra-aortic balloon pump	1p
		Left ventricular assist Device	1p
		Mechanical ventilation	2p

RESULTS

- 71 patients (70% bed occupancy; 65% male)
- mean age of 58 ± 16.6 years
- the mean length of stay was 22 ± 24 days, and the mean MRC-ICU was 13 ± 8



- The average number of prescribed medications per patient was 18 ± 7
- The drugs contributing most to complexity were antibiotics, continuous perfusion sedoanalgesia, and immunosuppressants.



CONCLUSIONS

1. In our study, patients admitted to the ICU due to Acute Respiratory Failure or following Lung Transplantation exhibited MRC-ICU.
2. These patients may be considered as candidates for prioritized pharmaceutical care.
3. To optimize resources It would be necessary to correlate the score with the interventions performed by the pharmacist upon admission to the unit and those accumulated until discharge

REFERENCES

1. Gwynn ME and col. Development and validation of a medication regimen complexity scoring tool for critically ill patients. Am J Health Syst Pharm. 2019;76(Supplement_2):S34-S40.