Glasgow Coma Scale versus Full Outline of Unresponsiveness Scale in Predicting Discharge Outcomes of Traumatic Brain Injury

Thesis

Submitted for Partial Fulfillment of the Requirement of Master Degree in Medical Surgical Nursing "Critical Care Nursing"

By

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Dedication

I would to dedicate this thesis to my family, parents, brother, sisters, friends and colleague for their tolerance and sustained support.

Special thanks and apologize to my husband, daughter and son for their tolerance and sustained support.

Eman Bakry Kassem

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List of Abbreviations

Abb.	Full Term
ABG	Arterial blood gases
BP	Blood pressure
℃	Degree Celsius
CBF	Cerebral blood flow
CNS	Central nervous system
CPP	Cerebral perfusion pressure
CSF	Cerebrospinal fluid
CT	Computed tomography
DAI	Diffuse axonal injury
DVT	Deep venous thrombosis
EDH	Epidural hemorrhages
F	Fahrenheit
FOUR scale	Full Outline of UnRsponsiveness scale
g/kg	Grams to Kilograms
GCS	Glasgow Coma Score
H	Hour
Hrs	Hours
I.V	Intravenous
ICH	Intracerebral hemorrhage
ICP	Intracranial pressure
ICU	Intensive Care Unit
IVH	Intraventricular hemorrhage
L	Left
LOC	Level of consciousness
LOS	Length of stay
mg/dL	Milligrams per deciliter
mmHg	Millimeter of mercury

Abb.	Full Term
MTBI	Moderate traumatic brain injury
NPV	Negative Predictive value
$PaCO_2$	Partial pressure of carbon dioxide
PPV	Positive Predictive value
R	Right
ROC-curve	Receiver Operating Characteristic curve
SAH	Subarachnoid hemorrhage
Sens	Sensitivity
SDH	Subdural hemorrhage
Spec	Specificity
SPSS	Statistical Package for Social Sciences SPSS
STBI	Severe traumatic brain injury
T	Tube
TBI	Traumatic brain injury

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Abstract

Head injury is a major cause of mortality and morbidity across the world. Effective initial assessment and early intervention have a valuable importance in patients with traumatic brain injury (TBI), so as to ensure the maximum favorable outcome. This study **aimed to** compare between the Full Outline of UnResponsiveness Scale and the Glasgow Coma Scale in predicting outcomes in patients with traumatic brain injury. **Design** comparative research design was utilized. It was **conducted** at Neurosurgery Intensive Care Unit (ICU) in Al Fayoum University Hospital. **Study subjects** a purposive sample of 100 adult patient with TBI .**Tools:** three tools were used Tool I: "Patients Profile Data Form", Tool II: "Level of Consciousness Assessment" and Tool III: "Discharge Data Assessment Record". **Results**: GCS is superior to FOUR scale in prediction of length of stay while they are the same in prediction of motor disability and sensory impairment (physical impairment). FOUR scale is superior to GCS in prediction of mortality and full recovery without any squeal. It was **concluded** the FOUR scale provides more neurologic details than the GCS and is a valid predictor of outcome in patients with TBI thus it should be considered for future prognostic models. It was **recommended** that using of FOUR scale for predicting outcomes in patients with traumatic brain injuries is the better but it need a special training to be applicable.

Keywords: Traumatic brain injury, Glasgow Coma scale, Full Outline of Unresponsiveness Scale, discharge Outcomes.