

## Role of JIPMER Burn Progress Proforma (JBPP)

Amrutha J.S.<sup>1</sup>, Ravi Kumar Chittoria<sup>2,\*</sup>

### Abstract

*Burn injuries represent a significant contributor to mortality rates in developing nations such as India. While critical care ICUs commonly utilize progress proformas, those specifically tailored for burns are less prevalent. Recognizing this gap, a modified burn progress proforma has been developed to encompass comprehensive details for both acute management and rehabilitation strategies. In a country like India, where burns can have severe consequences, the need for a specialized progress proforma becomes paramount. The existing progress proformas predominantly cater to critical care units, potentially overlooking the intricacies involved in burn cases. The adapted burn progress proforma addresses this limitation by incorporating a more nuanced approach to the acute management of burn injuries, taking into account the unique challenges presented by burns. This enhanced proforma not only focuses on the immediate critical care aspects but extends its scope to include a robust framework for rehabilitation. Rehabilitation is a crucial component in the overall treatment of burn injuries, ensuring a holistic approach to patient care. By detailing specific parameters related to acute care and rehabilitation, the modified burn progress proforma aims to serve as a comprehensive tool for healthcare professionals, optimizing patient outcomes and minimizing the impact of burn injuries on mortality rates in developing nations like India.*

**Keywords:** JIPMER, Burns, progress, proforma, healthcare

### INTRODUCTION

Burn patients are susceptible to critical conditions at any juncture, emphasizing the necessity for a meticulous daily record of patient information during the initial days of treatment. This practice serves a dual purpose: not only does it facilitate more effective management of the patient, but it also proves invaluable for medicolegal purposes. Despite the existence of an initial assessment burns proforma, the critical need for daily documentation of vital signs and other pertinent details remains evident for comprehensive management planning. The dynamic nature of burn injuries necessitates continuous monitoring and assessment, as a patient's condition can rapidly evolve, demanding swift and adaptive medical responses. To address this, the incorporation of a daily recording system becomes imperative during the initial days of a burn patient's care [1]. This routine documentation goes beyond the static snapshot provided by the initial assessment burns proforma, offering a real-time, evolving picture of the patient's health status. The significance of daily recording extends beyond the confines of immediate medical management, branching into the realm of medicolegal considerations. Comprehensive documentation is not only a tool for healthcare professionals but also a crucial aspect in establishing a legal record of the patient's journey, potentially serving as essential evidence in the event of disputes or inquiries. This dual-purpose approach underscores the importance of a systematic and daily record-keeping system for burn patients [2].

#### \*Author for Correspondence

Ravi Kumar Chittoria  
E-mail: drchittoria@yahoo.com

<sup>1</sup>Senior Resident, Department of Plastic Surgery, JIPMER, Pondicherry, India

<sup>2</sup>Professor and Associate Dean (Academic), Head of IT Wing and Telemedicine, Department of Plastic Surgery and Telemedicine, JIPMER, Pondicherry, India

Received Date: February 02, 2024

Accepted Date: February 05, 2024

Published Date: March 02, 2024

**Citation:** Amrutha J.S., Ravi Kumar Chittoria. Role of JIPMER Burn Progress Proforma (JBPP). Research & Reviews: Journal of Surgery. 2024; 13(1): 6–10p.

While an initial assessment burns proforma lays the foundation for understanding the patient's

condition at the onset, it may not capture the nuances of the patient's ongoing progress and response to treatment. Therefore, a dedicated focus on daily recording becomes pivotal for a more granular evaluation of the patient's vitals, medication responses, and overall well-being. This approach enables healthcare providers to identify trends, anticipate complications, and tailor their interventions in real time, thereby enhancing the efficacy of burn patient management. In contrast to the utility of daily recording, the act of writing longer notes on a patient's progress is cautioned against. Such extensive notes may inadvertently result from passively generated content, potentially leading to the inclusion of redundant or copied information [3]. This not only compromises the authenticity of the medical record but may also divert attention from the essential task of providing novel, patient-specific insights. Striking a balance between detailed documentation and content quality is imperative to ensure that the medical record remains a valuable and accurate representation of the patient's journey.

In conclusion, the need for daily recording of burn patient details during the initial days arises from both the dynamic nature of burn injuries and the dual requirements of effective medical management and medicolegal considerations. A systematic approach to daily documentation goes beyond the confines of existing proformas, providing a comprehensive and evolving view of the patient's health status, ultimately contributing to improved outcomes and legal clarity in the challenging landscape of burn care [4].

## MATERIALS AND METHODS

We developed a novel method of recording daily progress in burn patient's details. It is created by a review of the literature on currently available burn and critical care ICU proforma. It consists of 47 variables related to patient history, examination, and plan. (Table 1). Apart from the basic patient details like postburn day, post-operative day, and patient vitals and physical examination other details like post-healing day, recording of wound condition, scar condition, and various scar management methods are incorporated. We gave a pictorial representation of wound and scar status in the progress proforma. There is a checklist of various medications as well as pressure sore prophylaxis methods incorporated in it. This is applied to 5 patients during their stay in the JIPMER tertiary burns center (JTBC). It helped in properly recording all the patient details and management plans daily for critical patients and weekly for noncritical patients.

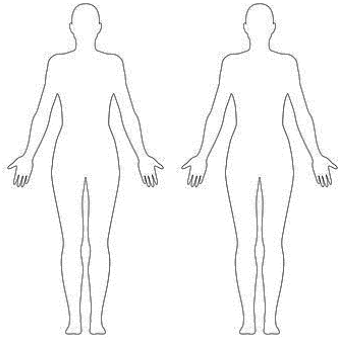
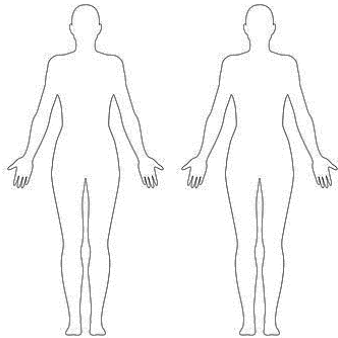
## RESULTS

All the patients were discharged after healing the burn wound and applying scar management methods. The recording in progress proforma led to a proper management plan and eventually better patient outcomes and improved survival.

## DISCUSSION

Burn injury is a major cause of death in developing countries such as India. According to the World Health Organization (WHO), burns and thermal injuries kill approximately 200,000 people worldwide each year. According to the American Burn Association, 1.1 million people require treatment for burns each year, with approximately 50,000 requiring hospitalization, 20,000 with burns involving at least 25% of their body parts (TBSA), and approximately 4,500 resulting in death. There are some differences between medical ICU patients and surgical ICU patients. Some problems specific to surgical patients such as basal atelectasis causing lung damage, multifactorial paralytic ileus (due to surgery, opioids, electrolyte imbalance), surgical site infection, bleeding, anastomotic leakage, epidural catheters, intercostal veins. and a vacuum cleaner. Many factors can affect the size of the host area: burn severity (TBSA percentage and burn depth); causes burns; concomitant inhalation injury; exposure to toxins; other injuries; patient characteristics such as age, preexisting chronic disease, drug or alcohol intoxication, and time spent on treatment. Depending on the severity of the injury, the primary host response immediately after a severe burn is similar to the response after many other conditions resulting from tissue damage (e.g., injury or major surgery) and helps initiate tissue repair and complete wound healing [5, 6]. The American Burn Association has updated its definition of inflammatory response syndrome in burn patients, which addresses a variety of diagnoses during critical care in burn patients. (Table 2)

**Table 1.** Format of the progress proforma

<b>Jipmer Tertiary Burns Center (JTBC), department of plastic surgery Jipmer burns progress proforma (JBPP)</b>					
Consultant Senior Resident Junior Resident					
Date Time	Name		Age/Sex	Hospital ID	
Doa	Day in ICU		Residence	Diagnosis	
Comorbidities	Procedure		Urinary Catheter Day	Central Catheter Site/Day	
PBD	POD	PHD	Peripheral Catheter Site/Day	ETT/Tracheostomy Day	
Complaints					
Vitals PR BP RR Temperature SPO2	Physical Examination Appearance Cardiovascular Pulmonary GIT Extremities Neurological Skin Local Examination			ABG	
				Ventilator Settings	
Pressure Ulcer	Yes	No	If Yes Site	24 Hrs I/O	Radiological Investigations
Blood Investigations					
Cultures Awaited/Came	Results		Medications Checklist		
Exudate			Antibiotics	Analgesics	
Blood			Gi Prophylaxis	DVT Prophylaxis	
Urine			Glycemic Control	Sedation	
Others			Inhalational Burns Management	IVF	
Transfusions			Pressure Sore Prophylaxis	Nutrition	
Splint			Other Medications		
Wound					
Scar					

Pressure Garment	Silicone Gel Sheet	Aloe Vera Gel	Onion Gel	Coconut Oil	Placenterix	Silicone Gel
Physiotherapy	Active	Passive	Referrals			
Plan	General Wound Scar					
Consultant Rounds and Plan						
Resident Signature						

**Table 2.** American Burn Association suggested definitions for utilizing systemic inflammatory response syndrome criteria in burn patients.

<b>The sepsis trigger in adult burn patients includes at least three of the following</b>	
Temperature	>39°C or <36.5°C
Progressive tachycardia	Adults >110 bpm
Progressive tachypnoea	>25 bpm not ventilated Minute ventilation >12 l/minute ventilated
Thrombocytopenia (not applicable until 3 days after initial resuscitation)	Adults 100000/mcl
Hyperglycaemia (absence of pre-existing diabetes mellitus)	Untreated plasma glucose >200 mg/dl Insulin resistance >7 units/hour insulin intravenous drip >25% increase in insulin requirements over 24 hours
Inability to continue enteral feed >24 hours	Abdominal distension Residual volume 2× feeding rate Diarrhea>2,500 ml/day

Urgent emergency care can be divided into five distinct stages that occur in the first days to weeks after a burn. The first stage is preliminary evaluation and classification, eliminating negative problems and conducting primary and secondary research. The second is to focus on fluid resuscitation to address hypovolemia. In the third stage, the wound is closed to accelerate healing and reduce the risk of infection. Stage 4 focuses on supportive or intensive care. If the patient survives, the fifth stage of care focuses on recovery, including physical and mental support, allowing the patient to return to a normal life. IV, intravenous injection; TBSA, total body surface area [7, 8]. The nursing process is different at all these stages and needs to be adjusted accordingly. Historical belief says that once the burn wound heals, the patient will return to normal. In fact, healing, the last stage of burn treatment, is one of the most important stages. Mortality is higher in burn survivors than in uninjured individuals, and the risk of death is highest in the first year after injury (and less than a year after injury) [9].

With this goal of personalized medicine, patients should be identified and the patient's response to burning stress and the patient's survival should be ensured. Preliminary tests in the form of burn tests were implemented. However, a daily or weekly measured progress model has not yet been implemented. The development form used in many centers is used with less burn-related forms in intensive care intensive care units [10].

## CONCLUSION

The implementation of a burn progress proforma is imperative for conducting a thorough evaluation of each patient, facilitating timely interventions, and ensuring prompt discharge. This tool proves invaluable in comprehending the specific concerns of each patient, allowing healthcare providers to tailor their actions accordingly. Furthermore, the burn progress proforma serves as a guide for consistently monitoring critical parameters in burn patients on a daily basis, promoting a standardized approach to care. Additionally, the utility of the proforma extends to the seamless exchange of patient information within the healthcare setting. Given the potential turnover of hospital staff and residents during a patient's stay, the proforma serves as a comprehensive document that encapsulates the essential

details of the patient's journey. This feature not only ensures continuity of care but also fosters effective communication among the medical team.

However, it is crucial to acknowledge that the burn progress proforma's efficacy can be enhanced through further refinement and validation. A large-scale randomized controlled trial (RCT) is warranted for a comprehensive evaluation, with the findings informing potential modifications and improvements to optimize its utility in diverse clinical settings

## REFERENCES

1. Smolle C, Cambiaso-Daniel J, Forbes AA, Wurzer P, Hundeshagen G, Branski LK, et al. Recent trends in burn epidemiology worldwide: A systematic review. *Burns*. 2017;43:249–57
2. Grattan R, T Florig Sa, Devara T, Mohan V, Gold JA. Progress Note Length And Structure In The Intensive Care Unit: The Unabridged Patient Medical Record. *Chest*. 2023 Oct 1;164(4):A5223.
3. Osuka A, Ogura H, Ueyama M, Shimazu T, Lederer JA. Immune response to traumatic injury: harmony and discordance of immune system homeostasis. *Acute Med. Surg.* 2014;1:63–69.
4. Jeschke MG, van Baar ME, Choudhry MA, Chung KK, Gibran NS, Logsetty S. Burn injury. *Nat Rev Dis Primers*. 2020 Feb 13;6(1):11.
5. Mason SA, et al. Increased rate of long-term mortality among burn survivors. *Ann. Surg.* 2019;269:1192–1199.
6. Mason SA, et al. Association between burn injury and mental illness among burn survivors: a population-based, self-matched, longitudinal cohort study. *J. Am. Coll. Surg.* 2017;225:516–524.
7. Sánchez-Sánchez M, García-de-Lorenzo A, Asensio MJ. First resuscitation of critical burn patients: progresses and problems. *Med Intensiva*. 2016 Mar;40(2):118–24. [PubMed]
8. Namdar T, Stollwerck PL, Stang FH, Siemers F, Mailänder P, Lange T. Transdermal fluid loss in severely burned patients. *Ger Med Sci*. 2010 Oct 26;8:Doc28. [PMC free article] [PubMed]
9. Guilabert P, Usúa G, Martín N, Abarca L, Barret JP, Colomina MJ. Fluid resuscitation management in patients with burns: update. *Br J Anaesth*. 2016 Sep;117(3):284–96. [PubMed]
10. Boccara D, Lavocat R, Soussi S, Legrand M, Chaouat M, Mebazaa A, Mimoun M, Blet A, Serror K. Pressure guided surgery of compartment syndrome of the limbs in burn patients. *Ann Burns Fire Disasters*. 2017 Sep 30;30(3):193–197. [PMC free article] [PubMed]