



Lessons Learned From A Mass Disaster: Successful institutional planning and preparation.

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Introduction:

We Present our experience of managing the NTPC Burn disaster at our centre. The experience gained will hopefully help in planning and management of similar disaster scenes in resource-constrained countries.

Poster no: 704



Methods:

On 1st November 2017, an explosion occurred in the NTPC 500MW power plant. Hot fuel gases and steam escaped affecting close to 100 people working in the area. 26 people succumbed to death, and 6 victims sustained burn injuries, and were referred to our centre, and were received on the 3rd November 2017. Despite having limited infrastructure supporting the treatment of acute burns, proper planning and coordinated team effort were immediately initiated and ultimately all patients were discharged in a healthy state with no significant morbidity from the burns.

Results:

All the patients were males ranging from 25 to 45 years and sustained 20% to 45% deep thermal burns over their bodies, which were covered with soot and coal dust. They were initially evaluated in the emergency where triage was conducted, and four out of six patients were found to have symptoms of respiratory burns and carbon monoxide poisoning. One high dependency unit (HDU) was immediately converted to a burn ICU, and all these patients were cared in isolation. Two patients had severe airway burns and had to be intubated and ventilated. These patients also required hyperbaric oxygen therapy to revert the carbon monoxide poisoning. Out of the six patients, two patients underwent tangential burn wound excision of both upper limbs and skin allograft placement procured from the Skin bank. The other four patients underwent wound cleansing, debridement, and allograft application subsequently.

All the patients recovered well from the burn injuries and were discharged with advice to continue rehabilitation at the regional centre. This was one of a kind effort where a trauma centre was converted to a full-fledged burn ICU to provide the best possible burn care to the victims. A team of 20 people consisting of Plastic Surgeons, Intensivists, Physiotherapists, Nutritionists, Infection Control Nurses, Wound Care Nurses, Hyperbaric oxygen therapist, and other support staff contributed immensely for management of these patients.

Conclusion:

Planned cooperation and prepared coordination between the team of doctors, nurses, and other support staff were the key in the successful management of the disaster.

More than 100 patients

22 DIE IN NTPC BOILER
BLAST

Triage

Makeshift ICU

Inhalational injuries

Excision grafting

Rehabilitation

