Trauma is the king of death globally. Thoracic trauma accounts for one-third of all the trauma cases.[1] Nearly 20%–25% of mortality is associated with thoracic trauma due to pulmonary, vascular, and diaphragmatic injuries.[2] The mortality rate is maximum with cardiac injury. Surgical interventions are required in about 15%–30% of penetrating trauma and about 10% of blunt trauma cases.[3] The overall utilization of health-care resources as well as mortality rate, is much higher in trauma due to vascular injuries than those without vessel injuries.

A trauma team is multidisciplinary, comprising of surgeons, emergency medicine specialists, orthopedicians, anesthetists, and nursing staff. Surprisingly, the definition of a trauma surgeon is still awaited. Missed injuries in trauma is a burning issue and accounts for significant morbidity and mortality rates.[4] It is indeed noteworthy that cardiovascular-thoracic (CVT) surgeons are not a part of the core trauma team at most trauma centers. Trauma care is attaining the highest priority on a global platform due to alarming mortality statistics. Several countries have now focused on developing it as an exclusive branch of surgical specialties. Here lies the catch. Who is to be designated as a trauma surgeon? Considering the available statistical data pertaining to injury profile, it would indeed be worthwhile to include CVT surgeons as trauma surgeons. This would facilitate better management protocols.

The period of training in CVT surgery for postgraduate students of general surgery is not defined clearly. An optional brief exposure of 4–6 weeks will certainly not develop the expertise required to tackle complex cardiothoracic procedures. It is pertinent to note that 9%–15% of thoracic trauma warrants operative intervention.[5] It is vital for the surgeon to be well versed with the platter of life-saving thoracic surgical procedures that can be used based on the merit of the case. Several instances can be quoted here, which can highlight the requirement of CTV surgeon in the core trauma team.

A 14-year-old boy presented to the surgical emergency with a sutured stab wound over the left chest, which was oozing blood continuously. This later revealed to be cardiac and pulmonary injury [Figure 1]. A 20-year-old male had a spindle impalement injury, with the needle piercing the anterior chest wall just beneath the right clavicle, with the tip of the needle seen protruding the back. The case warranted an urgent apical segment wedge resection of lung with drainage of pericardial effusion [Figure 2]. A 16-year-old boy presented with an arrow injury, in which the arrow had penetrated the left side of the neck, transfixing the left internal jugular vein and then piercing the apex of the left lung. This was managed with an anterolateral thoracotomy, gentle removal of the arrow, and repair of the subclavian artery injury [Figure 3].

The concept of thoracic damage control is better known to a CVT surgeon, rather than one who has been “labeled” as a trauma surgeon. In countries like India, where the training in CVT surgery is taken up as a superspecialty training (except for the direct 5-year program in few cases), the training model is a unique transition from general surgery to CVT, wherein, the student has mastered all standard management protocols related to trauma, especially abdominal trauma. Hence, the CVT surgeon is well versed with the principles of damage control abdominal surgery as well and can tackle major abdominal solid organ and vascular trauma. We can make the best use of the golden hours and not spend time in “referrals.”

At the same time, let us see the CVT specialty from another perspective. There has been a considerable decline in the number of trainees opting for cardiothoracic vascular surgery in the last few years. The status of the CVTS specialty itself is shaken up by the emergence of minimally invasive modalities of treatment for cardiovascular diseases. Is it that the specialty is dying? It is for us to wake up and make the CVT surgeon as a vital component of the trauma armamentarium, with a unique identity as a trauma surgeon.

We make the following recommendations:
1. CVT surgeons be designated as trauma surgeons
2. They could lead the team not only in trauma patient care, but also in terms of simulation training and research focused on quality-of-life issues in trauma
3. Cadaveric training modules for skills related to the management of cardiovascular thoracic trauma will be the spotlight feature of the training program
4. Dynamic education models now endeavor to instill an element of integration in teaching–learning. CVT surgery integrated with trauma surgery can be a prototype model for future.

This is a sincere appeal, to seriously consider the appropriate effective utilization of CVT specialists, thereby nurturing the much-needed breed of a “true” trauma surgeon.

Declaration of patient consent
The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient has given his consent for his images and other clinical information to be reported in the journal. The patient understands that his name and initial will not be published, and due efforts will be made to conceal his identity, but anonymity cannot be guaranteed.

Acknowledgment
The photographs for the cases mentioned in the manuscript have been provided by Dr. Sameer Bhatre, CTV Surgeon, Ruby Hall Clinic, Pune.

Siddharth Pramod Dubhashi, Sagar Galwankar, Sameer Bhatre, Anand Sancheti, Harinder Singh Bedi

Department of Surgery, All India Institute of Medical Sciences, Nagpur, 2Department of CVTS, Ruby Hall Clinic, Pune, 3Department of CVTS, New Era Hospital, Nagpur, Maharashtra, 4Department of CVTS, Ivy Hospital, Mohali, Punjab, India, 5Department of Emergency Medicine, Sarasota Memorial Hospital, Florida State University, Florida, USA

Address for correspondence: Prof. Dr. Siddharth P Dubhashi, Department of Surgery, AllIMS, Plot No. 2, Sector-20, Mihan, Nagpur - 441 108 E mail: spdubhashi@gmail.com

REFERENCES
1. Çakmak M, Nail Kandemir M. Study of 433 operated cases of thoracic trauma. Indian J Surg 2016;78:477-81.
2. Pezzella AT, Silva WE, Lancey RA. Cardiothoracic trauma. Curr Probl Surg 1998;35:647-789.
3. Kaiser LR, Singhal S. Surgical foundations: Essentials of thoracic surgery. J Am Heart Assoc 2004;110:3157.
4. Houshian S, Larsen MS, Holm C. Missed injuries in a level I trauma center. J Trauma 2002;52:715-9.
5. LoCicero J 3rd, Mattox KL. Epidemiology of chest trauma. Surg Clin North Am 1989;69:15-9.

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

Access this article online
Quick Response Code: Website: www.onlinejets.org
DOI: 10.4103/JETS.JETS_74_20

How to cite this article: Dubhashi SP, Galwankar S, Bhatre S, Sancheti A, Bedi HS. Cardiovascular-thoracic surgeons stepping in as trauma surgeons: The ideal prescription for trauma care in India. J Emerg Trauma Shock 2020;13:114-5.
Submitted: 06-May-2020, Accepted: 07-May-2020, Published: 10-Jun-2020