

Current Status of Advanced Trauma Life Support(ATLS) Courses in India and Future Directions

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JPN

**Apex
Trauma
Center**



All India Institute of Medical Sciences, New Delhi

Introduction...

The Beginning - 1978 by Dr. Jim Styner



- ◆ 1980 - ACS and COT



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- ❖ Provides participants safe and reliable method for immediate management of multiply injured patient



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❖ Provides basic knowledge necessary to-

- Assess the patient's condition rapidly and accurately
- Resuscitate and stabilize patient according to priority
- Determine if the patient's needs exceed a facility's capacity
- Arrange appropriately for the patient's inter- hospital transfer (**who, what, when and how**)
- Maintain optimal care at any point during the evaluation, resuscitation, or transfer process

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- ❖ For infrequent trauma care giver - provides an easy-to-remember method for evaluating and treating the victim of a traumatic event
- ❖ For frequent care giver - provides a scaffold for evaluation, treatment, education, and quality assurance

World Scenario...

- ❖ Available in nearly 60 countries
- ❖ Over one million doctors
- ❖ Become the foundation of care for injured patients by teaching a **common language and a common approach**

Evidence ...

Title: TRAUMA OUTCOME IMPROVES FOLLOWING THE ADVANCED TRAUMA LIFE SUPPORT PROGRAM IN A DEVELOPING COUNTRY.[Article]

Source: Journal of Trauma-Injury Infection & Critical Care. 34(6):890-899, June 1993.

Abstract: Trauma outcome variables before and after the institution of the Advanced Trauma Life Support (ATLS) program were compared for the largest hospital in Trinidad and Tobago from July 1981 through December 1985 (pre-ATLS) and from January 1986 to June 1990 (post-ATLS). A total of 199 physicians were ATLS trained by June 1990. Outcome data were analyzed for all dead or severely injured patients (ISS \geq 16; n = 413 pre-ATLS and n = 400 post-ATLS). Trauma mortality decreased post-ATLS (134 of 400 vs. 279 of 413) throughout the hospital, including the ICU (13.6% post-ATLS ICU mortality vs. 55.2% pre-ATLS). The odds of dying from trauma increased with age (1.02 for each year), ISS score (1.24 for each ISS increment), and blunt injury, both pre-ATLS and post-ATLS. Post-ATLS mortality was associated with a higher ISS (31.6 vs. 28.8). Although there was a higher percentage of blunt injury pre-ATLS (84.0%) versus post-ATLS (68.3%), the mortality rates for both blunt and penetrating injuries were higher in the pre-ATLS group (19.7% pre-ATLS vs. 6.3% post-ATLS for penetrating and 76.6% pre-ATLS versus 46.2% post-ATLS for blunt). For each ISS category, mortality was greater in the pre-ATLS group (ISS \geq 24 pre-ATLS mortality 47.9% vs. 16.7% post-ATLS; ISS 25-40 pre-ATLS mortality 91.0% vs. 71.0% post-ATLS). The overall ratio of observed to expected mortality based on the MTOS data base was lower for the post-ATLS period (pre-ATLS ratio 3.16; post-ATLS ratio 1.94). Multiple logistic regression analysis indicated that although post-ATLS mortality was affected by the lower incidence of blunt injury and a lower overall ISS score, the ATLS program was a significant factor in determining the observed decrease in mortality. Postinjury functional status among survivors was improved post-ATLS (minor disability 88.3% post-ATLS vs. 22.4% pre-ATLS and major disability 1.9% post-ATLS vs. 6.7% pre-ATLS). Our data demonstrate that the ATLS program significantly improved trauma patient outcome in a developing country, thus supporting the concept of international promulgation of this program for physicians.

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[World J Surg.](#) 2014 Feb;38(2):322-9. doi: 10.1007/s00268-013-2294-0.

Educational and clinical impact of Advanced Trauma Life Support (ATLS) courses: a systematic review.

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Abstract

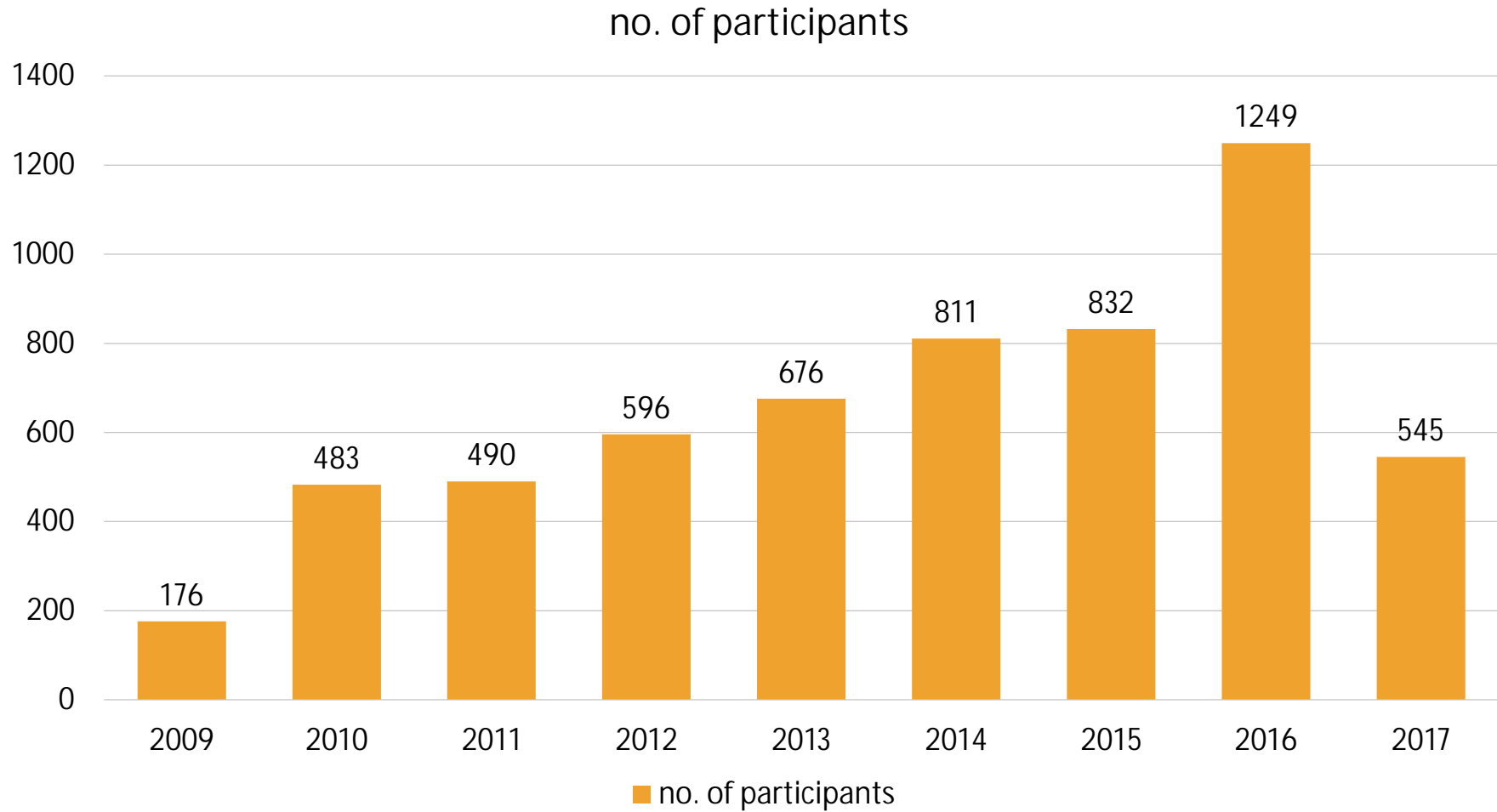
BACKGROUND: We aimed to systematically review the literature on the educational impact of Advanced Trauma Life Support (ATLS) courses and their effects on death rates of multiple trauma patients.

METHODS: All Medline, Pubmed, and the Cochrane Library English articles on the educational impact of ATLS courses and their effects on trauma mortality for the period 1966-2012 were studied. All original articles written in English were included. Surveys, reviews, editorials/letters, and other trauma courses or models different from the ATLS course were excluded. Articles were critically evaluated regarding study research design, statistical analysis, outcome, and quality and level of evidence.

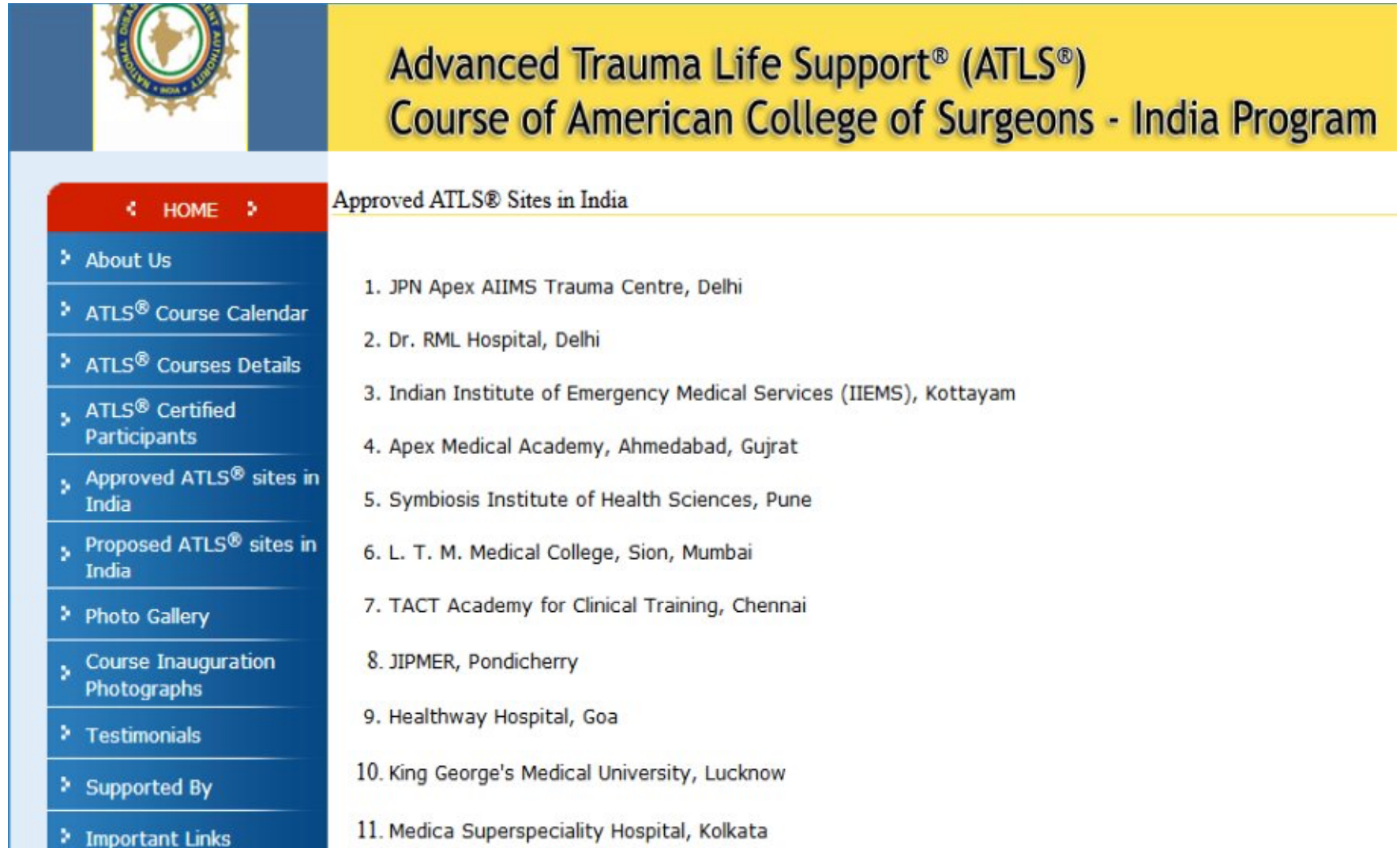
RESULTS: A total of 384 articles were found in the search. Of these, 104 relevant articles were read; 23 met the selection criteria and were critically analyzed. Ten original articles reported studies on the impact of ATLS on cognitive and clinical skills, six articles addressed the attrition of skills gained through ATLS training, and seven articles addressed the effects of ATLS on trauma mortality. There is level I evidence that ATLS significantly improves the knowledge of participants managing multiple trauma patients, their clinical skills, and their organization and priority approaches. There is level II-1 evidence that knowledge and skills gained through ATLS participation decline after 6 months, with a maximum decline after 2 years. Organization and priority skills, however, are kept for up to 8 years following ATLS. Strong evidence showing that ATLS training reduces morbidity and mortality in trauma patients is still lacking.

CONCLUSIONS: It is highly recommended that ATLS courses should be taught for all doctors who are involved in the management of multiple trauma patients. Future studies are required to properly evaluate the impact of ATLS training on trauma death rates and disability.

ATLS India Scenario....



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The screenshot displays the website for the Advanced Trauma Life Support (ATLS) Course of the American College of Surgeons - India Program. The page features a navigation menu on the left and a list of approved ATLS sites in India on the right.

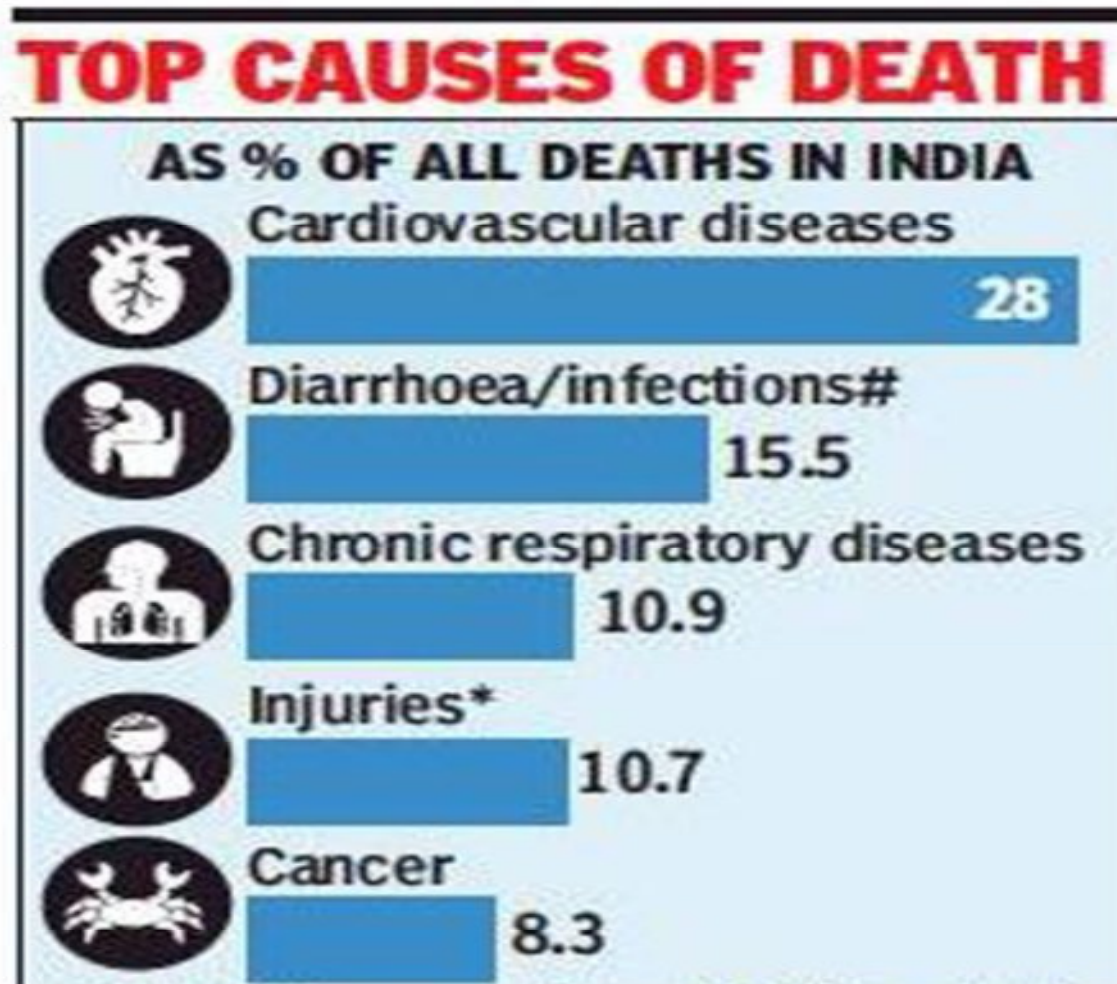
**Advanced Trauma Life Support® (ATLS®)
Course of American College of Surgeons - India Program**

Approved ATLS® Sites in India

- 1. JPN Apex AIIMS Trauma Centre, Delhi
- 2. Dr. RML Hospital, Delhi
- 3. Indian Institute of Emergency Medical Services (IIEMS), Kottayam
- 4. Apex Medical Academy, Ahmedabad, Gujrat
- 5. Symbiosis Institute of Health Sciences, Pune
- 6. L. T. M. Medical College, Sion, Mumbai
- 7. TACT Academy for Clinical Training, Chennai
- 8. JIPMER, Pondicherry
- 9. Healthway Hospital, Goa
- 10. King George's Medical University, Lucknow
- 11. Medica Superspeciality Hospital, Kolkata

Discussion...

India State-Level Disease Burden Initiative's Report 2017



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- non-availability of Trauma Systems - "getting the right patient in the right time to the right health care facility for the right care".
- The critical gaps existing for developing a working trauma system are –
- Lack of supportive infrastructure
- Existing manpower not versed with existing relevant protocols of trauma care
- Non-existence of concept and willpower for trauma registry and trauma related research.
- Inadequate efforts for injury prevention.

Efforts towards improving trauma care in India

- ❖ Establishment of trauma center at AIIMS as apex institute for patient care, research and training in field of trauma care
- ❖ Up gradation and development of trauma care facilities at university hospitals
- ❖ Improving infrastructure and monitoring of pre hospital care system
- ❖ Development of injury surveillance and trauma registry at JPNATC

Future Directions...



Advanced Trauma Life Support® (ATLS®) Course of American College of Surgeons - India Program

◀ HOME ▶

- ▶ About Us
- ▶ ATLS® Course Calendar
- ▶ ATLS® Courses Details
- ▶ ATLS® Certified Participants
- ▶ Approved ATLS® sites in India
- ▶ Proposed ATLS® sites in India
- ▶ Photo Gallery
- ▶ Course Inauguration Photographs
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Proposed ATLS® Sites in India

- Bangalore, Karnataka
- Srinagar, Jammu & Kashmir
- Hyderabad, Andhra Pradesh
- Guwahati, Assam and Other NE States
- Chandigarh Including Haryana and Punjab
- Bhopal, Madhya Pradesh
- Bhubaneswar, Orissa
- Jaipur, Rajasthan
- Patna, Bihar
- Dehradun, Uttarakhand
- Shimla, Himachal Pradesh
- Raipur, Chattisgarh
- Ranchi, Jharkhand

JPNATC has initiated many other short term courses on its own as well as in collaboration with international partners.

This Includes:

- Advanced Trauma Care for Nurses (ATCN)
- Pre-Hospital Trauma Life Support Course (PHTLS)
- Rural Trauma team Development Course (RTTDC)
- AIIMS Trauma Assessment and Management Course (ATAM)
- AIIMS Ultrasound Trauma Life Support Course (AUTLS)
- AIIMS Basic Emergency Care Course (AIIMS-BECC)
- AIIMS Management of Acute Wound in Emergency Course (AIIMS-MAWE)
- AIIMS Critical Care Course (ACCC)
- AIIMS Basic Plastic and Reconstructive Surgery Course (BPRS Course)

Surgical Super-specialty Course

- M.Ch. (Master of Chirurgery) – Trauma Surgery and Critical Care
- AIIMS is the first institution in India to start a formal degree course for surgical specialist to be trained in trauma surgery.
- Other Degree and Fellowship level courses planned
- M.S. (Masters of Surgery) – Trauma and Emergency Surgery
- D.M. (Doctorate in Medicine) – Trauma Critical Care
- M.Ch./ Fellowships in Spine Surgery; Complex Pelvic Trauma/ Brachial Plexus Injuries etc.

Conclusion..

- ❖ ATLS - a measurable, reproducible, and comprehensive system of trauma care.
- ❖ Increasing outreach of course with upcoming new sites.
- ❖ Need to promulgate local need based courses.
- ❖ **Public and policy maker's commitment** is must needed to make future safe

THANK YOU

