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The Literature

- Roberts DJ et al; Indications for Trauma Damage Control Surgery International Study Group. Evidence for use of damage control surgery and damage control interventions in civilian trauma patients: a systematic review. World J Emerg Surg. 2021 Mar 11;16(1):10. doi: 10.1186/s13017-021-00352-5.
- Jakob DA et al Intra-Abdominal Hemorrhage Control: The Need for Routine Four-Quadrant Packing Explored. World J Surg. 2021 Apr;45(4):1014-1020. doi: 10.1007/s00268-020-05906-3. Epub 2021 Jan 16.
- https://www.youtube.com/watch?v=lQAN7Z3_4y

Abdominal Packing

Tips & Tricks from ESTES Education in collaboration with the emergency surgery section

The Problem

Massive intra-abdominal bleeding from trauma requires immediate control to prevent death.

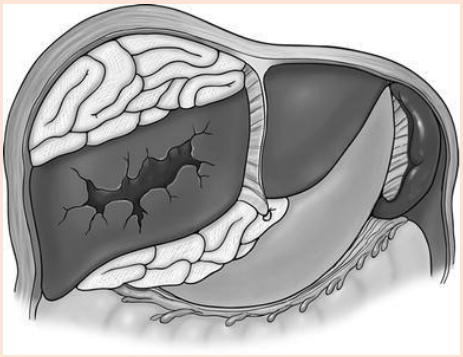
The Challenge

- Achieve rapid hemorrhage control
- Minimize further injury
- Stabilize before definitive repair

The Evidence

- Four-quadrant packing improves survival by controlling major bleeding.
- Most effective in unstable patients with intra-abdominal trauma.
- Aligns with damage control surgery principles (DCS): control first, repair later.

Tips & Tricks



van As, A.B., Millar, A.J.W. Management of paediatric liver trauma. Pediatr Surg Int 33, 445–453 (2017). https://doi.org/10.1007/s00383-016-4046-3

Surgical view of 4-quadrant approach

Packing Technique:

- Use swaps (not suction) to remove blood quickly.
- Perform 4-quadrant packing:RUQ → liverLUQ → spleenPelvis → right and left of rectum
- Return to each area to assess ongoing bleeding.

Localized Injuries:

If bleeding is localized, skip full packing and directly compress the source with swaps.

Conclusion

Four-quadrant abdominal packing is a life-saving technique in trauma care.
When performed promptly and correctly, it improves hemodynamic stabilization and buys time for definitive repair.