

# Intra-operative fluid and infusion therapy in Adult Liver Transplantation: A National Survey

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## INTRODUCTION

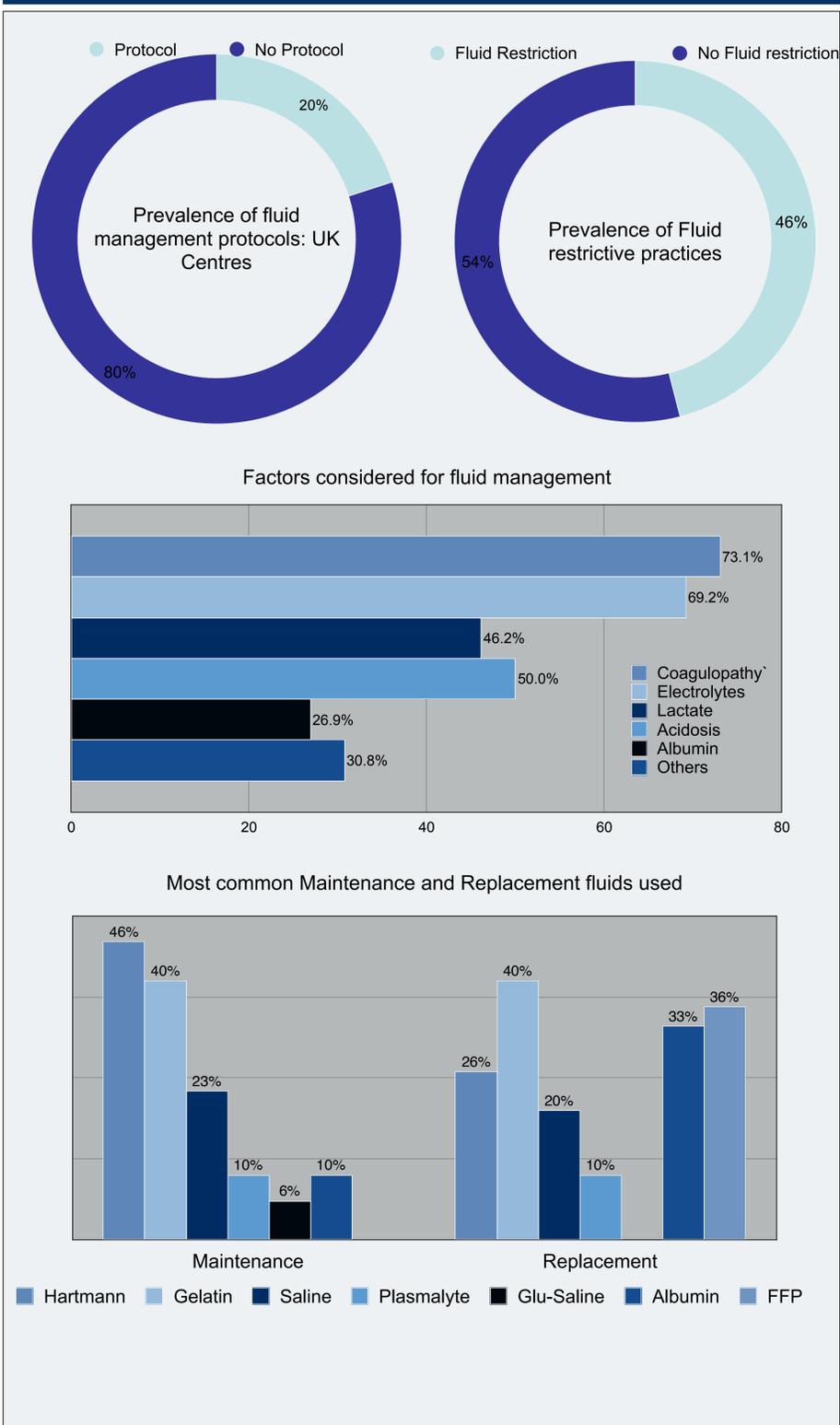
Fluid management in liver transplantation is one of the fundamental factors affecting outcomes<sup>1</sup>. Intra-operative fluid practices in liver transplant surgery are widely variable and depend on practitioner and departmental preferences as well as institutional resources. Systematic surveys to highlight these practice variations are scarce<sup>2</sup> and none is available nationally. Our survey aims to identify the current practice patterns in UK that relate to Intra-operative fluid and infusion therapy along with rationale behind the choice of fluid for Liver transplant surgery.

## METHODS

- We designed and distributed an anonymous web based 20 point survey including questions related to fluid therapy, drug infusions, vasopressors and current practice of VVB/IVC cross and side clamp
- Transplant anaesthetist currently practicing at 7 liver transplant centres in the UK were contacted through respective departments.
- All responses were anonymised to person but not institute.
- Survey was live from August to December 2018
- Responses were analysed and presented as tables, graphs and frequency.

1. Transplant Proceedings. 2016;48:2491-4  
2. Transplant Proceedings. 2013;45:2258-62

## RESULTS



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- **Participation & Response:** All UK LT units participated. Response rate of survey was 42% (30/70). All the responses were from consultant anaesthetists with >80% having more than 5 years of experience.
- **Technique of transplantation:**
  - IVC Side clamp used commonly (76% agreed)
  - VVB used rarely (72% agreed)
  - Nearly half (56% respondents) practice washing of PRBC before transfusion
- **Choice of fluid:**
  - More than half (62%) considered combination of colloid (Gelatin/Albumin) and Balanced crystalloid (Hartmann's/Plasmalyte) ideal.
  - At the same time nearly half (45.5%) didn't have access to their preferred choice
  - Majority (65%) argue there is no single ideal fluid for OLT

## CONCLUSION

- Fluid therapy in liver transplant is highly variable across UK centers.
- Hartmanns, Gelatins and Albumin are the most commonly used fluids.
- Certain controversial fluids such as NaCl (chloride liberal) and FFP (as a replacement fluid) are still being used.
- Newer balanced salt solutions are in sporadic use .
- High quality studies are needed to establish whether standardization of fluid therapy will help in improving outcomes in OLT