UPDATE ON ICS TRANSFER GUIDELINES

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MIDYORKS NHS TRUST
AIMS

• BACKGROUND
  • ICNARC DATA RE TRANSFER NUMBERS
  • ICS TRANSFER GUIDELINES

• RECOMMENDATIONS
  • ORGANISATION AND PLANNING
  • CLINICAL GUIDELINES
  • FURTHER RESEARCH
ICNARC TRANSFER DATA

FROM 1 APR 2014 - 31 MAR 2017

• 601,478 ADMISSIONS TO 266 PARTICIPATING CRITICAL CARE UNITS

• 28,418 (4.7%) WERE TRANSFERRED FROM ANOTHER HOSPITAL

• EQUATES TO ANNUAL FIGURE OF APPROX. 9500 TRANSFERS PER YEAR

• 27.8% OF TRANSFERS ORIGINATE FROM ED, 35.5% FROM A GENERAL CRITICAL CARE UNIT, 11% FROM A SPECIALIST CRITICAL CARE UNIT & 25% FROM OTHER AREAS
ICNARC TRANSFER DATA

• 3687 TRANSPORTS (13%) WERE THE RESULT OF REPATRIATION OF WHICH 513 (1.8% OF TOTAL) WERE FROM ABROAD

• 56% OF TRANSPORTS OCCURRED BETWEEN THE HOURS OF 18.00 HOURS & 07.59 COMPARED TO 44% DURING THE DAY

• TRANSPORTS FAIRLY EVEN MON-FRI, SLIGHTLY LESS AT WEEKEND
BACKGROUND

• GUIDELINES ARE A COLLABORATION BETWEEN THE INTENSIVE CARE SOCIETY (ICS) AND THE FACULTY OF INTENSIVE CARE MEDICINE (FICM)

• PROVIDE COLLEAGUES WITH UP TO DATE EVIDENCE BASED ADVICE AND PROMOTE HIGH STANDARDS OF CARE DURING THE TRANSFER OF CRITICALLY ILL PATIENTS

• PRIOR TO DEVELOPMENT OF GUIDELINES, INFORMATION WAS OBTAINED FROM INTENSIVE CARE NATIONAL AUDIT & RESEARCH CENTRE, THE SCOTTISH INTENSIVE CARE SOCIETY AUDIT GROUP PLUS THE CRITICAL CARE OPERATIONAL DELIVERY NETWORKS IN ENGLAND, WALES AND NORTHERN IRELAND
BACKGROUND

• ICS CARRIED OUT A SYSTEMATIC LITERATURE REVIEW TO IDENTIFY ARTICLES RELATING TO TRANSFERS PUBLISHED SINCE THE PREVIOUS EDITION (2011) OF THE ICS GUIDELINES

• THE QUALITY OF PUBLISHED EVIDENCE RELATING TO TRANSFERS IS POOR COMPRISING MOSTLY CASE SERIES FROM SINGLE CENTRES

• ICS TRANSFER RECOMMENDATIONS ARE THEREFORE BASED ON A COMBINATION OF AVAILABLE EVIDENCE, EXPERT OPINION AND ADVICE FROM PATIENT REPRESENTATIVES
ORGANISATIONAL RESPONSIBILITIES

- EACH CRITICAL CARE NETWORK (ODN) SHOULD have a nominated lead for transfer whose responsibilities include the development and oversight of referral pathways, transfer protocols and associated quality assurance programmes.

- ALL ACUTE HOSPITALS SHOULD nominate a lead consultant for critical care transfers.
ORGANISATIONAL RESPONSIBILITIES

- ALL ACUTE HOSPITALS **MUST** HAVE SYSTEMS AND RESOURCES IN PLACE TO RESUSCITATE, STABILISE AND TRANSPORT CRITICALLY ILL PATIENTS WHEN REQUIRED (PLANS SHOULD COVER ALL CRITICAL CARE AREAS INCLUDING ICU, HDU, ACUTE WARDS AND ED)
ORGANISATIONAL RESPONSIBILITIES

• ALL ACUTE PROVIDER TRUSTS **MUST** HAVE ARRANGEMENTS IN PLACE TO ENSURE THAT TRANSFERS FOR CAPACITY REASONS ALONE (NON-CLINICAL TRANSFERS) OCCUR ONLY AS A LAST RESORT.
ORGANISATIONAL RESPONSIBILITIES

• IF TRANSFER IS NECESSARY THEN THE TRANSFER SHOULD BE TO THE MOST APPROPRIATE HOSPITAL FOR THE CLINICAL NEEDS OF THE PATIENT, WHILST TAKING IN TO ACCOUNT BED AVAILABILITY, TRANSFER DISTANCE, AND DESIGNATED TRANSFER GROUP
CRITICAL CARE NETWORKS

• CRITICAL CARE NETWORKS AND PROVIDER TRUSTS SHOULD CONSIDER WHETHER THE DEVELOPMENT AND USE OF DEDICATED TRANSPORT TEAMS WOULD BE APPROPRIATE TO BEST MEET THE TRANSFER NEEDS OF THEIR PATIENTS

• CRITICAL CARE NETWORKS SHOULD LIAISE WITH LOCAL NHS AMBULANCE PROVIDER TRUSTS TO ENSURE THE AVAILABILITY OF SUITABLE AMBULANCES FOR CRITICAL CARE TRANSFER AND COMPATIBLY OF MOUNTING SYSTEMS WITH TRANSFER TROLLEYS
CRITICAL CARE NETWORKS

• CRITICAL CARE NETWORKS AND PROVIDER TRUSTS SHOULD AGREE A FRAMEWORK FOR PRIORITISATION OF INTERFACILITY TRANSFERS AND APPROPRIATE RESPONSE TIMES IN KEEPING WITH THE NATIONALLY AGREED PROTOCOL

• NETWORK LEAD CLINICIAN MUST ENSURE THAT ADEQUATE GOVERNANCE ARRANGEMENTS ARE IN PLACE ACROSS THE NETWORK AND THAT ALL PATIENT TRANSFERS ARE SUBJECT TO AUDIT, CRITICAL INCIDENT REPORTING AND REVIEW INCLUDING ANALYSIS OF FEEDBACK FROM PATIENTS AND RELATIVES
STAFF COMPETENCE

• ALL STAFF POTENTIALLY INVOLVED IN THE TRANSPORT OF CRITICALLY ILL PATIENTS SHOULD have access to appropriate educational resources, receive training in transfer medicine and have the opportunity to gain experience in a supernumerary capacity

• ALL STAFF INVOLVED IN TRANSFERS MUST be able to demonstrate the range of competencies appropriate to their role

• STAFF WITHOUT THE APPROPRIATE TRAINING AND COMPETENCIES SHOULD NOT UNDERTAKE UNSUPERVISED TRANSFERS
STAFF COMPETENCE

- Critical care networks and provider trusts SHOULD consider the use of simulation training in their transfer training packages with a particular focus on the practical and technical aspects of transfer.

- Only staff with appropriate training and competencies SHOULD undertake aero-medical transfers. Minimum requirements include safety training, evacuation procedures for the aircraft, and basic on board communication skills (particularly for helicopters).
TRANSFER EQUIPMENT

• ALL ACUTE HOSPITALS RESPONSIBLE FOR TRANSFERRING CRITICALLY ILL PATIENTS MUST HAVE ACCESS TO A CEN1 COMPLIANT TRANSFER TROLLEY EG FERNO
TRANSFER EQUIPMENT

• All monitoring and equipment must be suitable for use in the transfer environment and mounted on the transfer trolley in such a way as to be CEN compliant.

• Standardised equipment lists and transfer bags offer practical and safety advantages should be considered by networks and trusts.

• Standardised equipment across a network.
## Transfer Equipment

<table>
<thead>
<tr>
<th>Advanced Airway Equipment</th>
<th>Breathing Equipment</th>
<th>Circulation Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. ET Tube size 6</td>
<td>1. I-gel size 3</td>
<td>1. IV cannula size 14G</td>
</tr>
<tr>
<td>2. ET Tube size 7</td>
<td>2. I-gel size 4</td>
<td>2. IV cannula size 16G</td>
</tr>
<tr>
<td>3. ET Tube size 8</td>
<td>3. I-gel size 6</td>
<td>3. IV cannula size 18G</td>
</tr>
<tr>
<td>4. ET Tube size 9</td>
<td>4. Airway HME Filter</td>
<td>4. IV cannula size 20G</td>
</tr>
<tr>
<td>5. Laryngoscope Handles, Bulbs &amp; Batteries</td>
<td>5. Catheter Mount</td>
<td>5. IV cannula size 22G</td>
</tr>
<tr>
<td>7. Laryngoscope Blade size 4</td>
<td>7. Anaesthetic mask size 4 Green</td>
<td>7. Luer lock syringes 20ml</td>
</tr>
<tr>
<td>8. Endotracheal tubes</td>
<td>8. Anaesthetic mask size 5 Orange</td>
<td>8. Luer lock syringes 50ml</td>
</tr>
<tr>
<td>10. Tape for securing ET</td>
<td>10. Wave form capnograph</td>
<td>10. Alcohol wipes</td>
</tr>
<tr>
<td>12. Stylet</td>
<td>12. Infusion device giving sets</td>
<td>12. Infusion device extension sets</td>
</tr>
<tr>
<td>13. Gum Elastic Bougie</td>
<td>13. Infusion device extension sets</td>
<td>13. 3-way tape (or equivalent)</td>
</tr>
<tr>
<td>14. Tracheal dilator</td>
<td>14. 3-way tape (or equivalent)</td>
<td>14. Obsturators (Red and/or white bungs)</td>
</tr>
<tr>
<td>15. Scalpel size 22</td>
<td>15. Oblurators (Red and/or white bungs)</td>
<td>15. Micropera tape</td>
</tr>
<tr>
<td></td>
<td></td>
<td>20. Trauma shear scissors</td>
</tr>
<tr>
<td></td>
<td>External Equipment</td>
<td>21. Labels</td>
</tr>
<tr>
<td></td>
<td>1. Self-inflating bag and mask with oxygen reservoir and tubing (BVM)</td>
<td>22. Sodium Chloride ampoules (flush)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>23. Clinical waste bags</td>
</tr>
<tr>
<td>Self-ventilating Equipment</td>
<td>Interventional circulation Equipment</td>
<td>Inside pouch on side of bag</td>
</tr>
<tr>
<td>1. Gudel airway size 2</td>
<td>1. EZ-IO Intraosseous Device</td>
<td>1. Clinical waste bags</td>
</tr>
<tr>
<td>2. Gudel airway size 3</td>
<td>2. EZ-IO Intraosseous Device</td>
<td>2. Sharps box (to be sourced locally)</td>
</tr>
<tr>
<td>8. Oxygen tubing</td>
<td>8. Tourniquets</td>
<td>8. Tourniquets</td>
</tr>
<tr>
<td></td>
<td>10. Tourniquets</td>
<td>10. Tourniquets</td>
</tr>
</tbody>
</table>
TRUST LEAD CLINICIAN ROLE

- Responsibility for guidelines, staff training, competencies, and equipment provision
- Should report to the Trust Critical Care Delivery Group/Governance Meeting and Network Transfer Forums
- Wyccodn has extended this further and asked each hospital to nominate a lead nurse as well as a consultant
CLINICAL RECOMMENDATIONS

- DECISIONS TO TRANSFER AND TO ACCEPT PATIENTS **MUST** BE MADE BY APPROPRIATE CONSULTANTS IN BOTH THE REFERRING AND RECEIVING HOSPITALS (ICU & RELEVANT SPECIALITY)
- TRANSFER FOR IMMEDIATE LIFESAVING INTERVENTIONS **MUST NOT** BE DELAYED BY LACK OF AVAILABILITY OF A CRITICAL CARE BED
CLINICAL RECOMMENDATIONS

• Repatriation policies for patients who no longer require specialist care should be agreed across networks.

• Patients requiring repatriation must be transferred within 48 hours of being identified as suitable for repatriation.

• Patients and their relatives should be kept informed at all stages of the transfer process and should be provided with appropriate written information.
PRE TRANSFER

- A risk assessment must be undertaken and documented by a senior clinician to determine the level of anticipated risk during transfer. The outcome of the risk assessment should be used to determine the competencies of the staff required to accompany the patient during transfer.
- Patients should be appropriately resuscitated and stabilised prior to transfer to reduce the physiological disturbance associated with movement and reduce the risk of deterioration during the transfer.
PRE TRANSFER

- CHECK LISTS SHOULD BE USED TO HELP TO ENSURE THAT ALL NECESSARY PREPARATIONS HAVE BEEN COMPLETED
MONITORING

- STANDARD OF MONITORING DURING TRANSPORT SHOULD BE AT LEAST AS GOOD AS THAT AT THE REFERRING HOSPITAL OR BASE UNIT
- THE MINIMUM STANDARDS OF MONITORING REQUIRED ARE :-
  - CONTINUOUS OBSERVATION
  - CARDIAC RHYTHM (ECG) MONITORING
  - NON-INVASIVE BLOOD PRESSURE
  - OXYGEN SATURATION (SAO2)
  - END TIDAL CARBON DIOXIDE (ETCO2) IN INTUBATED / VENTILATED PATIENTS
  - TEMPERATURE
MONITORING

- Monitoring **should** be continuous throughout the transfer.
- All monitors, including ventilator displays and syringe drivers **should** be visible to accompanying staff.
- All portable equipment **must** be securely stowed to reduce the risk of injury in the event of an accident.
• CRITICAL CARE NETWORKS **SHOULD** DEVELOP STANDARDISED DOCUMENTATION FOR BOTH INTER-HOSPITAL AND INTRA-HOSPITAL TRANSPORT. THIS SHOULD INCLUDE A CORE DATA SET FOR AUDIT PURPOSES

• A DOCUMENTED RECORD OF OBSERVATIONS AND EVENT **MUST** BE MAINTAINED.
DURING TRANSFER

- Patients should be securely strapped to the transfer trolley by means of a 5-point harness (or similar). Reassurance, sedation, analgesia and anti-emetics should be provided as required to reduce patient discomfort and distress.

- Staff must remain seated at all times and wear the seat belts provided. If it is necessary to attend to the patient during transfer, the ambulance crew should be informed and the vehicle stopped in a safe place.

- High speed journeys must be avoided except where clinically necessary. Blue lights and sirens may be used to aid passage through traffic to deliver a smooth journey.
RESEARCH RECOMMENDATIONS

• THERE SHOULD BE FUTURE RESEARCH INTO THE IMPACT OF TRANSFER ON PATIENTS AND THEIR RELATIVES WITH A PARTICULAR FOCUS ON UNDERSTANDING PATIENT AND RELATIVE EXPERIENCES, TO ENABLE FUTURE IMPROVEMENTS IN PRACTICE AIMED AT MINIMISING THE DISTRESS POTENTIALLY CAUSED BY TRANSFER
CONCLUSION

• 2019 ICS TRANSFER RECOMMENDATIONS ARE BASED ON A COMBINATION OF AVAILABLE EVIDENCE, EXPERT OPINION AND ADVICE FROM PATIENT REPRESENTATIVES

• ACUTE PROVIDER TRUSTS **MUST** HAVE ARRANGEMENTS IN PLACE TO ENSURE THAT TRANSFERS FOR CAPACITY REASONS ALONE (NON-CLINICAL TRANSFERS) OCCUR ONLY AS A LAST RESORT

• NETWORKS HAVE A ROLE TO PLAY IN SAFE TRANSFER OF PATIENTS EG TRAINING, LOCAL GUIDELINES, DOCUMENTATION

• TRUST LEAD CLINICIAN FOR TRANSFERS IS RESPONSIBLE FOR GUIDELINES, STAFF TRAINING, COMPETENCIES, AND EQUIPMENT PROVISION

• STAFF REQUIRE APPROPRIATE TRAINING FOR TRANSFERS
ANY QUESTIONS?