

The background of the slide is a light gray gradient with several realistic water droplets of various sizes scattered across it. The droplets have highlights and shadows, giving them a three-dimensional appearance. The main title is centered in the upper half of the slide.

UPDATE ON ICS TRANSFER GUIDELINES

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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 TRANSFERS (13%) WERE THE RESULT OF REPATRIATION OF WHICH 513 (1.8% OF TOTAL) WERE FROM ABROAD
- 56% OF TRANSFERS OCCURRED BETWEEN THE HOURS OF 18.00 HOURS & 07.59 COMPARED TO 44% DURING THE DAY
- TRANSFERS 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

Advanced Airway Equipment		Breathing Equipment		Circulation Equipment	
1. ET Tube size 6	1	1. I-gel size 3	1	1. IV cannula size 14G	2
2. ET Tube size 7	1	2. I-gel size 4	1	2. IV cannula size 16G	2
3. ET Tube size 8	1	3. I-gel size 5	1	3. IV cannula size 18G	2
4. ET Tube size 9	1	4. Airway HME Filter	1	4. IV cannula size 20G	2
5. Laryngoscope Handles , Bulbs & Batteries	2	5. Catheter Mount	1	5. IV cannula size 22G	2
6. Laryngoscope Blade size 3	1	6. Sterile scissors	1	6. Pairs of non sterile gloves	10
7. Laryngoscope Blade size 4	1	7. Anaesthetic mask size 4 Green	1	7. Luer lock syringes 20ml	5
8. Endotracheal ties	2	8. Anaesthetic mask size 5 Orange	1	8. Luer lock syringes 50ml	4
9. Magill Forceps	1	9. Stethoscope	1	9. Chloraprep skin wipes	3
10. Tape for securing ET	1	10. Wave form capnograph	1	10. Alcohol wipes	10
11. Lubricant gel sachets	3	11. Waters circuit	1	11. Blood./Colloid fluid giving sets (Gravity)	2
12. Stylet	1			12. Infusion device giving sets	5
13. Gum Elastic Bougie	1	Suction Equipment		13. Infusion device extension sets	5
14. Tracheal dilator	1	1. Yankauer suckers	2	14. 3-way taps (or equivalent)	4
15. Scalpel size 22	1	2. Suction catheters (10F)	2	15. Obturators (Red and/or white bungs)	10
16. 10ml syringe	1	3. Suction catheters (12F)	2	16. Micropore tape	1
17. Torch	1	4. Suction catheters (14F)	2	17. Gauze swabs	4
18. Face masks	2	5. Suction tubing	2	18. Cannula dressings	5
19. ETCO2 indicator	1			19. ECG Electrodes	12
				20. Trauma shear scissors	1
		External Equipment		21. Labels	10
		1. Self-inflating bag and mask with oxygen reservoir and tubing (BVM)	1	22. Sodium Chloride ampoules (flush)	10
Self-ventilating Equipment		Interventional circulation Equipment		Inside pouch on side of bag	
1. Gudel airway size 2	1	1. EZ-IO Intraosseous Device	1	1. Clinical waste bags	2
2. Gudel airway size 3	1	2. EZ-IO Needles	3	2. Sharps box (to be sourced locally)	1
3. Gudel airway size 4	1	3. Needles Green	5	3. IV Fluids (crystalloid) 500ml	3
4. Nasopharyngeal airway 6	1	4. Needles Blue	5	4. Pressure bag	1
5. Nasopharyngeal airway 7	1	5. Needles White	5	5. Handheld Portable Suction	1
6. Non rebreathe oxygen mask size 4	1	6. Drawing up needles	5		
7. Non rebreathe oxygen mask size 5	1	7. Tourniquets	2		
8. Oxygen tubing	2				

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 ACRITICAL 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

Pre transfer check list

Critical Care Transfer to Another Hospital
Check sheet for preparation of a patient for transfer to another hospital

Before Moving The Patient Consider:

- Reason:** Can the patients need be met within the existing hospital
Timing: Does the transfer need to be done at this time
Transport: Booked and reference number documented
Risks: What are predictable risks & will the base hospital be exposed whilst the team are deployed

Preparing For Transfer:

Tick

E	Equipment	Establish on transfer ventilator and secure patient trolley	<input type="checkbox"/>
		Full monitoring to ICS standard	<input type="checkbox"/>
		Emergency drugs, oxygen and fluids available	<input type="checkbox"/>
		Transfer bag checked (including battery back up)	<input type="checkbox"/>
		Consider spinal immobilisation if necessary	<input type="checkbox"/>
S	Systematic Examination	Specialist equipment e.g balloon pump, warming blankets	<input type="checkbox"/>
		Full ABCDE assessment	<input type="checkbox"/>
		Confirm Airway secure	<input type="checkbox"/>
C	Communication	2 working and accessible Intravenous access points	<input type="checkbox"/>
		Confirm patient stable and suitable for transfer	<input type="checkbox"/>
		Inform patient (if not sedated) and family	<input type="checkbox"/>
O	Observations	Confirm transfer, requirements and ETA with receiving unit	<input type="checkbox"/>
		Full set of observations recorded	<input type="checkbox"/>
		Mobile telephones available	<input type="checkbox"/>
R	Recent Investigations	Commence inter-hospital transfer charting	<input type="checkbox"/>
		Confirm patients stable and suitable for transfer	<input type="checkbox"/>
		Handover documentation completed	<input type="checkbox"/>
T	Team	Recent investigation results including arterial blood gas	<input type="checkbox"/>
		Confirm radiological images transferred electronically	<input type="checkbox"/>
		Skill mix of transfer team appropriate	<input type="checkbox"/>
		Protective clothing / High visibility jackets available	<input type="checkbox"/>
		Is the unit safe to leave?	<input type="checkbox"/>

After transfer, Remember

- Team Debrief
- Restock transfer bags
- Submit Network audit data

Details of person completing pre transfer check sheet

Name

Designation

Signature

Date Time

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

DOCUMENTATION


- 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
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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

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ANY QUESTIONS?