# THE TORONTO PREHOSPITAL HYPERTONIC RESUSCITATION - HEAD INJURY AND
# MULTI ORGAN DYSFUNCTION FEASIBILITY TRIAL (TOPHR HIT)

## PREHOSPITAL AIR VEHICLE AND CRITICAL CARE TRANSPORT UNIT

### CASE REPORT FORM (FORM 1/4)

**Rules:** Fill fields from left to right. For fields where no information is available, use a yellow highlighter to mark the entire field; this signifies that the field was intentionally left blank because no information was available for abstraction.

Tyrone Perreira, B.PHE, ACP, Paramedic Research Coordinator, Prehospital and Transport Medicine Research Program, SWCHSC Tel: 416-480-6100x7072 Email: tyrone.perreira@sw.ca

<table>
<thead>
<tr>
<th><strong>Study Patient Number &amp; Call Information</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>v1</strong></td>
</tr>
<tr>
<td><strong>Subject ID Code</strong> <em>(assigned by Paramedic Research Coordinator)</em></td>
</tr>
<tr>
<td><strong>Air or Critical Care</strong> <em>(For AIR cases use an “A”; for CRITICAL CARE (CCTU) Cases use a “C”)</em></td>
</tr>
<tr>
<td><strong>Patient Number</strong> <em>(EMS patient number as entered into the “Administration” section—“Patient Number” field from the ACR that was completed by the ACP crew that administered the study fluid and transported the patient (i.e., treating ACP crew (TACPC)). The ACR call information must be identical to the TOPHR HIT Data Checklist call information (e.g., Call Number))</em></td>
</tr>
<tr>
<td><strong>Call Received Date</strong> <em>(TACPC ACR Administration - Call Date (YMD) Convert 2 digit month to 3 character month)</em></td>
</tr>
<tr>
<td><strong>Multiple CADs</strong> <em>(if different call numbers are available for the same location or vicinity with similar date/times. Confirm whether they represent the same incident)</em></td>
</tr>
<tr>
<td><strong>Vehicle Number</strong> <em>(TACPC ACR Administration – A/C reg./Veh #, transcribe as is)</em></td>
</tr>
<tr>
<td><strong>Vehicle Status</strong> <em>(TACPC ACR Administration – Status)</em></td>
</tr>
<tr>
<td><strong>Crew Member 1 (Attendant) No.</strong> <em>(TACPC OASIS # from ACR Clinical Treatment / Procedures &amp; Results – “Paramedic 1 No.”)</em></td>
</tr>
</tbody>
</table>

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**Note:**
- For fields where no information is available, use a yellow highlighter to mark the entire field; this signifies that the field was intentionally left blank because no information was available for abstraction.
- Fill fields from left to right.
- Convert 2 digit month to 3 character month.
- Transcribe date and times from the CAD.
- Confirm whether they represent the same incident.

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**R:\Studies\TOPHR HIT\Manuscript\methods paper\appendices\Appendix 12 CRF - AIR**

**JLong**

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### INCLUSION CRITERIA

**v13**

**Age ≥16 years**

(TACPC ACR Administration – Date of Birth (YMD) or estimated age from ACR – Physical Exam – Age (must be ≥ 16 years) and TOPHR HIT Paramedic Data Checklist (TPDC) – Inclusion Criteria – Age ≥ 16. All form discrepancies must be resolved prior to Study ID Code assignment)

1 = Yes / 2 = No <STOP>

**v14**

**Blunt Traumatic Injury**

(TACPC ACR – Clinical Information – Traumatic Injury Site/Type – Type column=34 or 35 or Incident History or General Information – Remarks) and TPDC – Inclusion Criteria – Blunt Trauma. Note “crush injury” is considered to be a form of blunt trauma here)

1 = Yes / 2 = No <STOP>

**v15**

**GCS**

(total GCS score immediately prior to study fluid from TACPC ACR - Clinical Treatment/Procedures & Results (CTPR) and TPDC – Inclusion Criteria - GCS ≤ 8. To be included, total score must range from ≥ 3 - ≤ 8)

1 = Yes / 2 = No <STOP>

**v16**

**ACP Treated, Transported, and ACR**

(one ACP crew administered the study IV fluid and the same, or another, ACP crew transported the patient (if the patient was not pronounced at scene) and completed the ACR; which was used for this CRF as the original source document (ACR yellow copy). Aka TACPC for “treating ACP crew”. And the TPDC - TACPC treated, transported, and ACR boxes are checked. Level I or II precepting as Level III (with a preceptor) are included. Helicopter transport cases are decided via consensus)

1 = Yes / 2 = No <STOP>

**v17**

**IV Access**

(IV access obtained at any point during the call TACPC ACR – CTPR - IV Procedures Codes or text (e.g., “IV running well” or “IV TKVO”) and TPDC – IV Access. Do not use top right Call Type □ IV ONLY since call limited to only IV given. IV codes include 340 and 345 (Normal Saline) If patient entered in the trauma room, circle yes.)

1 = Yes / 2 = No <STOP>

### EXCLUSION CRITERIA

**v18**

**Known or Suspected Pregnancy**

(TPDC – Exclusion Criteria – No Known or suspected pregnancy. Not using TACPC ACR unless necessary since no pertinent negatives are systematically recorded on ACR)

1 = Yes <STOP> / 2 = No

**v19**

**Primary Injury Penetrating**

(TPDC – Exclusion Criteria – No primary penetrating trauma)

1 = Yes <STOP> / 2 = No

**v20**

**VSA Prior to Randomization**

(TPDC – Exclusion Criteria – No VSA prior to randomization)

1 = Yes <STOP> / 2 = No

**v22**

**Arrival at scene to IV access >4 hours**

(TACPC ACR CTPR – 1st IV access time minus TACPC ACR General Administration – Arrive Scene is less than or equal to 4 hours and TPDC – Exclusion Criteria – No time to IV access > 4 hours)

1 = Yes <STOP> / 2 = No

**v23**

**Amputation above wrist or ankle**

(TPDC – Exclusion Criteria – No amputation above wrist or ankle)

1 = Yes <STOP> / 2 = No

**v24**

**Any burn**

(TPDC – Exclusion Criteria – No burn (thermal, chemical, electrical, radiation))

1 = Yes <STOP> / 2 = No

**v25**

**Suspected hypothermia**

(TPDC – Exclusion Criteria – No suspected hypothermia)

1 = Yes <STOP> / 2 = No

**v26**

**Asphyxia**

(TPDC – Exclusion Criteria – No asphyxia)

1 = Yes <STOP> / 2 = No

**v27**

**Minor Fall**

(no minor fall, i.e., no fall from standing on floor, no fall from height ≤ 1 m, or no fall from ≤ 5 stairs (TACPC ACR or TPDC))

1 = Yes <STOP> / 2 = No
**PATIENT DEMOGRAPHICS**

<table>
<thead>
<tr>
<th>Patient No.</th>
<th>Date of birth</th>
<th>Estimated Age</th>
<th>Gender</th>
<th>Estimated Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>___ ___ ___</td>
<td>2 digit month to 3 character month</td>
<td>___ ___ ___ ___ (016 years – 110 years)</td>
<td>(M)ale / (F)emale / (U)known / (N)ot available</td>
<td>___ ___ ___ kg (approx. 040 kg – 250 kg)</td>
</tr>
</tbody>
</table>

**CIRCUMSTANCES OF INJURY**

<table>
<thead>
<tr>
<th>Type of Injury</th>
<th>Case Severity Score</th>
<th>Mechanism of Injury</th>
<th>Type of Transport</th>
</tr>
</thead>
</table>

**Prehospital System Factors**

<table>
<thead>
<tr>
<th>Trauma Occurs Date</th>
<th>Trauma Occurs Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>TPDC – Trauma Occurred Date. This date/time may or may not be the same as the trauma recognized date/time and/or call received date/time. If missing, see TACPC – ACR – Clinical Information – Incident History then decide via consensus, create a note-to-file to document, and enter the estimated date (e.g., &quot;incident occurred 1 hour previous&quot; and arrive scene=02Jan2005 00:30 hours then trauma occurs date=01Jan2005 23:30 hours. Confirm date that spans midnight).</td>
<td>TPDC – Trauma Occurs Time. If missing, and relevant information is available from the TACPC ACR (e.g., &quot;trauma occurred 20 minutes ago&quot;) then decide via consensus, create a note-to-file to document, and enter the estimated time. Note: cannot use ACR – Clin information – “Time of Occurrence” since the definition for “occurrence” is not standard</td>
</tr>
<tr>
<td>___ ___ ___ ___ / ___ ___ ___ ___ / ___ ___ ___ ___</td>
<td>___ ____ : ___ ___ (00:00 (midnight) – 23:59)</td>
</tr>
</tbody>
</table>
Trauma Recognized Date (date trauma was recognized or "discovered" or "witnessed" by bystander or EMS. TPDC – Trauma Recognized Date. If missing, see TACPC – ACR – Clinical Information – Incident History and decide via consensus (see above). Confirm date that spans midnight).

__ __ __ __ l __ __ __ l __ ___
y y y y m m m m d d

Trauma Recognized Time (TPDC – Trauma Recognized Time)

__ h __ _ : __ ___ (00:00 (midnight) – 23:59)

1 = Yes / 2 = Not documented on TPDC or ACR / 3 = No

↓ If Yes, Type of Witness (If witnessed, then please specify type of witness. TPDC – Type of Witness. If missing see TACPC – ACR – Clinical Information – Incident History)
1. Layperson bystander(s)
2. Toronto EMS
3. Off duty medical professional(s) – Utstein
4. Other, please specify:

↓ If Yes or Other,
1. No
2. Yes, layperson(s) present
3. Not documented on ACR
4. Other: please specify:

Bystander Present (TPDC or TACPC – ACR notes bystander present regardless of bystander witnessed or not or bystander care)

Bystander Care (Basic Trauma Life Support (BTLS) prior to TACPC arrival to scene by bystander regardless of witnessed or not TACPC – ACR – Clinical Information – Incident History or Treatment prior to arrival or General Administration - Remarks / Orders)

Other EMS Response (mention of other EMS response TACPC arrival at patient. See TPDC or TACPC – ACR – Administration – Level of Care (on Scene) Clinical Information – Incident History or Treatment prior to arrival or CTPR or General Administration – Remarks/Orders)

Fire
Police
E.F.R.T
Other Ambulance
ACP 1 (earlier ACP crew 1 Quad 5-8 & no study fluid given)
ACP 2 (earlier ACP crew 2 Quad 5-8 & no study fluid given)
PCP 1 (earlier PCP crew 1 ACR - Vehicle No. Quadrant 1-4)
PCP 2 (earlier PCP crew 1 ACR - Vehicle No. Quadrant 1-4)
Other Crew (e.g., 3rd PCP with Preceptor)

Other Crew

↓ if Other Crew, pls specify:
## Date/Time Points (if no times are documented, please leave blank)

<table>
<thead>
<tr>
<th>Date/Time Point</th>
<th>Description</th>
<th>Format</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Call Accepted Date</strong></td>
<td>(derive date TACPC crew notified from TACPC ACR – Call Date and CTPR and if missing then derive based on ACR – General Administration- Call Events- Crew Notified and confirm date that spans midnight).</td>
<td>y y y y m m m m d d</td>
</tr>
<tr>
<td><strong>Call Accepted Time</strong></td>
<td>(TACPC ACR – General Administration- Call Events- Crew Notified)</td>
<td>h h m m</td>
</tr>
<tr>
<td><strong>Depart Base Date</strong></td>
<td>(derive date TACPC vehicle moves or from TACPC ACR – Call Date and CTPR and if missing then derive based on ACR – General Administration- Call Events- Crew Mobile and confirm date that spans midnight).</td>
<td>y y y y m m m m d d</td>
</tr>
<tr>
<td><strong>Depart Base Time</strong></td>
<td>(time TACPC vehicle moves or “crew mobile” from TACPC ACR – General Administration- Call Events- Crew Mobile)</td>
<td>h h m m</td>
</tr>
<tr>
<td><strong>Arrive Pick-Up Land Date</strong></td>
<td>(derive date TACPC vehicle stops upon arrival at scene TACPC ACR – Call Date and CTPR and if missing then derive based on ACR – General Administration- Call Events – Arrive Scene. Confirm date that spans midnight).</td>
<td>y y y y m m m m d d</td>
</tr>
<tr>
<td><strong>Arrive Pick-Up Land Time</strong></td>
<td>(TACPC ACR General Administration – Call Events – Arrive Scene)</td>
<td>h h m m</td>
</tr>
<tr>
<td><strong>Arrive Patient Site Date</strong></td>
<td>(derive date TACPC is out of vehicle and arrives by patient side TACPC ACR – Call Date and CTPR and if missing only then derive based on ACR – General Administration- Call Events – Arrive Patient. Confirm date that spans midnight).</td>
<td>y y y y m m m m d d</td>
</tr>
<tr>
<td><strong>Arrive Patient Site Time</strong></td>
<td>(TACPC ACR General Administration – Call Events – Arrive Patient)</td>
<td>h h m m</td>
</tr>
<tr>
<td><strong>Depart Patient Site Date</strong></td>
<td>(derive date TACPC vehicle departs scene with patient side TACPC ACR – Call Date and CTPR and if missing only then derive based on ACR – General Administration- Call Events – Depart Scene. Confirm date that spans midnight).</td>
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</tr>
<tr>
<td><strong>Depart Patient Site Time</strong></td>
<td>(TACPC ACR General Administration – Call Events – Depart Scene)</td>
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<tr>
<td><strong>Depart Landing Site Date</strong></td>
<td>(derive date TACPC vehicle departs scene with patient TACPC ACR – Call Date and CTPR and if missing only then derive based on ACR – General Administration- Call Events – Depart Scene. Confirm date that spans midnight).</td>
<td>y y y y m m m m d d</td>
</tr>
<tr>
<td><strong>Depart Landing Site Time</strong></td>
<td>(TACPC ACR General Administration – Call Events – Depart Scene)</td>
<td>h h m m</td>
</tr>
<tr>
<td><strong>Arrive Destination Land Site Date</strong></td>
<td>(derive date TACPC vehicle arrives at SWHSC or SMH with patient TACPC ACR – Call Date and CTPR and if missing only then derive based on ACR – General Administration- Call Events – Arrive Dest. Confirm date that spans midnight).</td>
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<tr>
<td><strong>Arrive Destination Land Site Time</strong></td>
<td>(TACPC ACR General Administration – Call Events – Arrive Dest.)</td>
<td>h h m m</td>
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<tr>
<td><strong>Delivery Patient Site Date</strong></td>
<td>(derive date TACPC vehicle arrives at SWHSC or SMH with patient TACPC ACR – Call Date and CTPR and if missing only then derive based on ACR – General Administration- Call Events – Arrive Dest. Confirm date that spans midnight).</td>
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<tr>
<td><strong>Delivery Patient Site Time</strong></td>
<td>(TACPC ACR General Administration – Call Events – Arrive Dest.)</td>
<td>h h m m</td>
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</table>
## PATIENT ASSESSMENT

### Lowest Recorded GCS
(Refer to TACPC ARC – Clinical Information – Incident history or Clinical Treatment / Procedures & Results)

Lowest GCS Assigned

1 = By TACPC / 2 = Prior to Arrival

<table>
<thead>
<tr>
<th>v67a</th>
<th>v67b</th>
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</thead>
<tbody>
<tr>
<td>v67a</td>
<td>v67b</td>
</tr>
</tbody>
</table>

### Vitals Pre/Post Intervention
(closest value prior to and post study fluid transcribed as is from TACPC ACR – Clinical Treatment/Procedures & Results. If pre/post vitals are “staged” across rows, record nearest time. If values are missing from ACR, leave fields blank. When filling out Pre Intervention, please start at v68d-83d and work upwards. If date spans midnight, confirm with CAD. In Diastolic field, use code 999 to represent “P”. In GCS Verbal, use “T” to represent Intubation. For GCS Total, max is either 15(_) or 10(T) depending on if value for GCS Verbal is numeric or “T”. If this is a MISSED CASE (Subject ID Code >=200) “Pre” and “Post” refers to pre and post IV initiation. Please print clearly.)

<table>
<thead>
<tr>
<th>Date yyyy/mm/dd</th>
<th>Time Hr:mm</th>
<th>Pulse Rate (mins)</th>
<th>Resp Rate (mins)</th>
<th>Blood Pressure Sys mmHg</th>
<th>Dia mmHg (P=999)</th>
<th>Temp °C</th>
<th>ECG Code</th>
<th>O2 Sat %</th>
<th>End T. CO2 mmHg</th>
<th>E</th>
<th>V</th>
<th>M</th>
<th>Total max 15(_) or 10(T)</th>
<th>R +/-</th>
<th>L +/-</th>
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<tbody>
<tr>
<td>v68-v83</td>
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<td>v68a - v83a</td>
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</tbody>
</table>

### Capillary Blood Glucose
(TACPC ACR – CTPR. If both text and actual value are written, please choose “6. Specific value is provided” and transcribe the actual number below)

1. “Normal”
2. “Low”
3. “High”
4. “CK Ketones”
5. No mention of capillary blood glucose
6. Specific value is provided (transcribe value below)

↓

### Capillary Blood Glucose – Actual Value

_____ _____ • _____ mmol/L
### Co morbidities (TACPC ACR – Relevant Past Hx)

Co morbidities (TACPC ACR – Clinical Information – Relevant Past Hx or narrative sections. Box checked =1, narrative stating co morbidity present =1, box not checked =2, narrative co morbidity not present =3)

<table>
<thead>
<tr>
<th>Box checked</th>
<th>Narrative</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>Not documented on ACR</td>
</tr>
<tr>
<td>3</td>
<td>Other – specify: ______________________</td>
</tr>
</tbody>
</table>

#### Previously Healthy

(TACPC ACR – Clinical – Previously Healthy box; If there are co morbidities written, please default to “other”).

<table>
<thead>
<tr>
<th>Box checked</th>
<th>Narrative</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>Not documented on ACR</td>
</tr>
<tr>
<td>3</td>
<td>Other – specify: ______________________</td>
</tr>
</tbody>
</table>

#### Unable to Obtain

(TACPC ACR – Clinical – Previously Healthy box)

<table>
<thead>
<tr>
<th>Box checked</th>
<th>Narrative</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>Not documented on ACR</td>
</tr>
</tbody>
</table>

#### Communicable Disease History (TACPC ACR – Clinical – Communicable Disease History)

None

<table>
<thead>
<tr>
<th>Box checked</th>
<th>Narrative</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>Not documented on ACR</td>
</tr>
</tbody>
</table>

Bloodborne

<table>
<thead>
<tr>
<th>Box checked</th>
<th>Narrative</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>Not documented on ACR</td>
</tr>
</tbody>
</table>

Infectious respiratory

<table>
<thead>
<tr>
<th>Box checked</th>
<th>Narrative</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>Not documented on ACR</td>
</tr>
</tbody>
</table>

Other – specify:

<table>
<thead>
<tr>
<th>Box checked</th>
<th>Narrative</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes: Please specify ______________________</td>
</tr>
<tr>
<td>2</td>
<td>Not documented on ACR</td>
</tr>
</tbody>
</table>

Unable to obtain

<table>
<thead>
<tr>
<th>Box checked</th>
<th>Narrative</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>Not documented on ACR</td>
</tr>
</tbody>
</table>

### INTERVENTIONS – GENERAL

#### Prehospital Oxygen Therapy Prior to Arrival

(most invasive documented oxygen therapy hook-up (successful and unsuccessful) from TACPC ACR Clinical Information – Treatment prior to arrival and ACR - CTPR (codes 130 – 142). If date spans midnight, confirm). See codes v117-119

1 = Yes / 2 = Not documented on ACR / 3 = No

↓ If Yes,

Prior Oxygen Therapy Code (the 1st oxygen therapy given from hook-up. If first and last then stop here)

__ __ __ (unknown code = 999)

130 – 142

#### Initial TACPC Oxygen Therapy Same as Prior Oxygen Therapy?

(ACR - CTPR (codes 130 - 142)

See codes v117-119

1 = Yes / 2 = No / 3 = Not Applicable

↓ If No, or not applicable

#### Initial TACPC Oxygen Therapy Date, Time, & Code

__ __ __ / __ __ __ / __ __ __ __ __ __

y y y y m m m d d h h m m 130 – 142
Oxygen Therapy Most Invasive Date, Time, & Code
(if > 1 oxygen therapy and same kind then copy. If >1 and different, transcribe
most invasive (Lowest Oxygen Nasal Cannula (132) < Oxygen Simple Face
Mask (131) < Oxygen High Concentration Mask (130) < Oxygen BVM (141) <
Oxygen (Mechanical) (142) Highest. If Oxygen Other (133), then decided via
consensus. Time from hook-up If no change in oxygen therapy, leave blank.)

Immobilization (TACPC ACR Clinical Information – Treatment prior to
arrival and ACR - CTPR (codes 105, 111, 112, 113, and 115))

Airway Management (airway management or airway breathing
procedure from TACPC ACR Clinical Information – Treatment prior to arrival
and ACR - CTPR (codes170, 171, 322, 324, and 326))
Airway Management During or Post Study Fluid
(if 1 then transcribe type. If > 1 procedure, transcribe the most invasive. Lowest NPA (170) ORO/NPA (170) < OPA (170) < LMA (171) < Naso Tracheal Tube (324) < Oral Tracheal Tube (326) < Surgical (322) Highest)

1. No Change
2. ORO / NASOPHARYNGEAL AIRWAY (NPA) (170)
3. LMA (171)
4. NASO-TRACHEAL INTUBATION (324)
5. ORO-TRACHEAL INTUBATION (326)
6. NEEDLE / SURGICAL CRICOTHYROIDOTOMY (322)
7. Other, please specify:

Ventilation (TACPC ACR Clinical Information – Treatment prior to arrival and ACR - CTPR (codes 141, 142). If patient intubated circle “2” unless otherwise stated).

Chest Decompression Needle / Thoracostomy (TACPC ACR Clinical Information – Treatment prior to arrival and ACR - CTPR (codes 320, 321))

Haemorrhage Control (TACPC ACR Clinical Information – Treatment prior to arrival and ACR - CTPR (code 101))

1 = Yes     /  2 = Not documented on ACR     /  3 = No

INTRAVENOUS (IV) FLUIDS RECEIVED

IV Attempts (total number of documented attempts (350) by all crews prior to IV access success according to TACPC ACR – Clinical Information – Treatment prior to arrival or CTPR or General Administration – Remarks / Orders. Three attempts is the maximum number of tries permitted)

1. No documented unsuccessful attempt
2. One unsuccessful attempt (350) prior to access (2 attempts in all)
3. Two unsuccessful attempts (350) prior to access
4. Three unsuccessful attempts (350) prior to access
5. Other, please specify:

IV Access - First to Achieve (TACPC ACR –Clinical Information – Treatment prior to arrival or CTPR or General Administration – Remarks / Orders)

1. Level II alone
2. Level I or II with preceptor
3. Prior ACP crew (that did not administer study fluid)
4. TOPHR HIT ACP Crew (TACPC)
5. Not Documented
6. Other EMS crew, please specify:
7. Other, please specify:

IV Access Date (first date/time of successful IV access for any type of IV fluid (e.g., saline or hypertonic saline) by prior crew or TACPC according to TACPC ACR –Clinical Information – Treatment prior to arrival or CTPR or General Administration – Remarks / Orders. If date spans midnight, confirm).

IV Access Time (first documented time of successful IV access of any type of IV fluid (e.g., saline or hypertonic saline) by prior crew or TACPC according to TACPC ACR – Clinical Information – Treatment prior to arrival or CTPR or General Administration – Remarks / Orders)

(00:00 (midnight) – 23:59)
**IV Solution Prior to Study Fluid**
(Clinical Information – Treatment Prior to Arrival, CTPR – TPMR, or CTPR -- Intake)

1. Yes, Unknown Type
2. Normal Saline
3. Ringers Lactate
4. Pentaspan
5. Mannitol
6. Other: _____________________________
7. Not Documented on ACR
↓ if 1-6 then,

**Total Volume IV Solution Administered Prior to Study Solution**
____ _____ _____ _____ mL (≤ 9999 mL)

**IV Study Fluid Started**
(IV study fluid was successfully started by the TOPHR HIT ACP crew – TACPC ACR CTPR. Note that "IV Study Fluid" is either hypertonic saline or normal saline)

↓ if Yes, (If 2 or 3, skip to Prehospital Medications)

**IV Study Fluid Randomization No.**
(TOPHR HIT IV study fluid label from TACPC ACR (yellow copy) and/or from TPDC. If >1 label, decide on most appropriate randomization number via consensus and create a note-to-file)

____ _____ _____ _____ (0001 – 9999)

**IV Study Fluid Type**
(once the next study envelope in sequence is opened, the type of study fluid is no longer masked or ‘blinded’. IV study fluid that was used for the patient according to the TACPC Crew Member 1 (Attendant) and available from the TPDC – IV Study Fluid Type))

1 = HSD / 2 = Normal Saline (345)

**IV Study Fluid (HSD or Normal Saline) Total Volume**
(total volume IV study fluid=HSD or NS received by patient on TACPC ACR –CTPR and from TPDC. A patient might receive up to 250 mL)

____ _____ _____ _____ mL (≤ 250 mL)

**IV Study Fluid Start Date**
(from date/time clamp opened according to TACPC ACR - CTPR. If date spans midnight, confirm. If more than one start and stop, take the first start and last stop for start and stop date/time, respectively)

____ _____ _____ / ____ _____ / ____ __________
y y y y m m m d d

**IV Study Fluid Start Time**
(00:00 (midnight) – 23:59)

____ _____ : ____ ____
h h m m

**IV Study Fluid Interrupted**
(the study fluid was started by the TACPC and interrupted, however, the flow might have been reestablished and the patient might have received a complete infusion according to TACPC ACR Clinical Information –CTPR or TPDC)

1 = Yes / 2 = Not documented on ACR
↓ if Yes, please specify:
### IV Study Fluid Complete Infusion (250 mL)

(250mL were completely received by the patient according to TACPC ACR Clinical Information – CTPR or TPDC)

1 = Yes (250mL) / 2 = No / 3 = Not documented on ACR

↓ If No, Reason for Incomplete Infusion of Study Fluid (the study fluid (either hypertonic saline or normal saline) was started by the TACPC, and 250mL were not completely received by the patient. Record reason according to TACPC ACR Clinical Information – CTPR and from TPDC)

1. IV stopped due to poor connection
2. IV pulled out by patient
3. IV interstitial
4. IV stopped by hospital staff
5. IV stopped due to Adverse Drug Reaction (ADR)\(^1\) to HSD, please specify:
6. Other, please specify:

### IV Normal Saline Total Volume Post Study Fluid

(total volume post IV study fluid from study fluid stop to ED from TACPC ACR – CTPR and TPDC)

---

<table>
<thead>
<tr>
<th>PARAMEDIC IMPRESSION OF STUDY FLUID</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ease of Use</strong> (ease of IV study fluid use according to crew member 1 (Attendant) paramedic from TPDC – The study fluid is easy to administer)</td>
</tr>
<tr>
<td>1 (agree) 2 3 4 5 (disagree)</td>
</tr>
<tr>
<td><strong>Medical Directive Compliance</strong> (ease of TOPHR HIT medical directive according to TACPC crew member 1 (Attendant) paramedic from TPDC – The medical directive is easy to follow)</td>
</tr>
<tr>
<td>1 (agree) 2 3 4 5 (disagree)</td>
</tr>
<tr>
<td><strong>Paramedic Hesitation to Use of Hypertonic Saline in 6% Dextran (HSD)</strong> (TPDC–Do you have any hesitation to using HSD?)</td>
</tr>
<tr>
<td>1 = Yes / 2 = No / 3 = Not documented on ACR</td>
</tr>
<tr>
<td>↓ If Yes, please specify:</td>
</tr>
</tbody>
</table>

---

\(^1\) Adverse Drug Reaction (ADR) defined as all noxious and unintended responses to Hypertonic Saline in Dextrose (HSD) at any dose (Health Canada)
<table>
<thead>
<tr>
<th>Code</th>
<th>Medication Description</th>
<th>Code Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>v152</td>
<td>Morphine (604) <em>(TACPC ACR – CTTPR)</em></td>
<td>1 = Yes / 2 = No</td>
</tr>
<tr>
<td>v153</td>
<td>Midazolam (603) <em>(TACPC ACR – CTTPR)</em></td>
<td>1 = Yes / 2 = No</td>
</tr>
<tr>
<td>v154</td>
<td>Lidocaine (591) <em>(TACPC ACR – CTTPR)</em></td>
<td>1 = Yes / 2 = No</td>
</tr>
<tr>
<td>v155</td>
<td>Lidocaine Topical (593) <em>(TACPC ACR – CTTPR)</em></td>
<td>1 = Yes / 2 = No</td>
</tr>
<tr>
<td>v156</td>
<td>Diazepam or Valium (531) <em>(TACPC ACR – CTTPR)</em></td>
<td>1 = Yes / 2 = No</td>
</tr>
<tr>
<td>v157</td>
<td>D50W (530) <em>(TACPC ACR – CTTPR)</em></td>
<td>1 = Yes / 2 = No</td>
</tr>
<tr>
<td>v158</td>
<td>Glucagon (560) <em>(TACPC ACR – CTTPR)</em></td>
<td>1 = Yes / 2 = No</td>
</tr>
<tr>
<td>v159</td>
<td>Naloxone (610) <em>(TACPC ACR – CTTPR)</em></td>
<td>1 = Yes / 2 = No</td>
</tr>
<tr>
<td>v160</td>
<td>Mannitol (601) <em>(TACPC ACR – CTTPR)</em></td>
<td>1 = Yes / 2 = No</td>
</tr>
<tr>
<td>v161</td>
<td>Succinylcholine or Anectine (655) <em>(TACPC ACR – CTTPR)</em></td>
<td>1 = Yes / 2 = No</td>
</tr>
<tr>
<td>v161a</td>
<td>Rocuronium (645) <em>(TACPC ACR – CTTPR)</em></td>
<td>1 = Yes / 2 = No</td>
</tr>
<tr>
<td>v162</td>
<td>Vecuronium or Norcuron (680) <em>(TACPC ACR – CTTPR)</em></td>
<td>1 = Yes / 2 = No</td>
</tr>
<tr>
<td>v163</td>
<td>Other <em>(TACPC ACR – CTTPR)</em></td>
<td>1 = Yes / 2 = No</td>
</tr>
</tbody>
</table>

* If Yes, please specify:
### PREHOSPITAL OUTCOME

#### Pronounced on Scene (pronounced by Base Hospital Physician while still at scene (code=366) according to TACPC ACR – CTPR)

<table>
<thead>
<tr>
<th>v164</th>
<th>Pronounced on Scene (pronounced by Base Hospital Physician while still at scene (code=366) according to TACPC ACR – CTPR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes, patient pronounced at scene</td>
</tr>
<tr>
<td>2</td>
<td>No, patient not pronounced at scene</td>
</tr>
</tbody>
</table>

#### CTAS Score (Depart Scene)

(TPDC – CTAS Score (depart scene))

1. Resuscitation
2. Emergency
3. Urgent
4. Less Urgent
5. Non-urgent
6. Missing (from TPDC)

#### Pronounced Prior to Arrival at Hospital

(pronounced by Base Hospital Physician prior to arrival at SWCHSC or SMH (code=366) according to TACPC ACR – CTPR. VSA en route is not the same as pronounced en route)

<table>
<thead>
<tr>
<th>v168</th>
<th>Pronounced Prior to Arrival at Hospital (pronounced by Base Hospital Physician prior to arrival at SWCHSC or SMH (code=366) according to TACPC ACR – CTPR. VSA en route is not the same as pronounced en route)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Yes (pronounced prior to arrival)</td>
</tr>
<tr>
<td>2</td>
<td>No (not pronounced prior to arrival)</td>
</tr>
</tbody>
</table>

#### CTAS Score (TPDC – CTAS Score) (arrive SWCHSC or SMH hospital)

(TPDC – Patient Status Change Score at arrival to SWCHSC or SMH)

1. Improved
2. Unchanged
3. Worsened
4. Became VSA en route
5. Missing (from TPDC)

#### Receiving Trauma Facility

(This field must still be completed for survivors as well as DOAs, as long as they were not pronounced en route. Name of the hospital that the unpronounced patient was brought to by the TACPC. TACPC ACR – Administration or CTPR.)

1. Sunnybrook & Women’s
2. St. Michael’s Hospital

#### Pronounced in Emerg?

(TACP ACR - General Administration – Pt. Outcome in Emerg. - 'Pronounced' checkbox)

1. Yes / 2. Not Documented / 3. No

#### Diversion or Transfer

(TACPC – Diversion or Transfer Prior to Receiving Trauma Facility)

1. Yes / 2. Not documented / 3. No

↓ If Yes, please specify:
**ABSTRACTION DETAILS**

**v176b**

**Enrollment Status**

(Possible values are Enrolled = “E”, Missed Case = “M”, Excluded = “X”. This field will be automatically populated based on Inclusion Criteria, Exclusion Criteria and Study Fluid Administration fields. Check to ensure data entry system populates with the correct value; override the system generated value if necessary and contact the study administrator.)

______ (E, M, or X)

**v177**

**Paramedic Research Coordinator Initials**

______  ______

first  last

**v178**

**Date Paramedic Research Coordinator Abstraction**

____ ____ ____  ____    /    ____  ____  ____    /   ____  ____

y        y        y         y             m       m      m              d       d

**INVESTIGATOR STATEMENT**

I certify that: I have carefully examined and verified all entries in this case form. All information entered onto these forms by myself and/or my associates is correct.

Principle Investigator Signature (LJM):

________________________________________

Date of Principle Investigator Verification (LJM):

____ ____ ____  ____    /    ____  ____  ____    /   ____  ____

y        y        y         y             m       m      m              d       d