

# **Alcor A-3630**

## **Case Report**



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## 1. Summary

*Information was derived from multiple sources and was all converted to Mountain Standard Time (MST). For de-identification, dates are not shown. T-0 represents the date of cardiac arrest, T-X represents occurrences before T-0, and T+X represents occurrences following T-0.*

A-3630 was a 27-year-old, post-mortem notification. This was a third-party signup with whole-body cryopreservation arrangements. The member was pronounced legally deceased in Texas at 04:17 hrs on T-0 days in June of 2023.

The patient was driven to Alcor for cryogenic cooldown. The patient arrived at Alcor on T+3 days at 18:10 hrs. The cryogenic cooldown was initiated on T+3 days at 18:45 hrs and terminated on T+8 days at 18:17 hrs. The patient was transferred to long-term care at liquid nitrogen temperature on T+15 days at 15:17 hrs.

## 2. Patient Assessment

### T-0 days

The member was pronounced legally deceased in Texas at 16:17 hrs. The patient was in the possession of the coroner where an autopsy was performed because of the age of the patient and also because it was an unattended death. Cardiac arrest was not estimated by the coroner.

### T+1 days

Alcor's emergency answering service notified Alcor at approximately 15:15 hrs about this evolving case. The deceased was not an active member at the time, but paperwork and funding were completed the same day.

## 3. Patient Recovery

A local funeral home was contacted and informed about the case. They agreed to work with Alcor and to notify Alcor's Deployment and Recovery Team (DART) as soon as the patient was released into their care. They ordered a Zeigler case for patient transport that was expected to arrive the following day.

Two DART team members arrived in Texas at 20:30 hrs and built the dry ice shipper. The patient was expected to be released by the coroner the following morning.

### T+2 days

The team purchased 600 pounds of dry ice. At 07:36 hrs the patient was released by the coroner to the funeral home. The DART team arrived at the funeral home and was able to surround the patient in dry ice upon arrival, at approximately 09:30 hrs.

The Zeigler case arrived at approximately 12:00 hrs. Insulation was applied to the outside of the shipper and the patient was placed into the case. The shipper was then filled to the top with more dry ice.

The family requested they be allowed to view the patient prior to departure. Since no transit permit had yet been issued, this was arranged.

#### **4. Patient Transport**

Friday, June 16th, 2023 T+3 days

The DART team departed the funeral home with the patient in a rented vehicle at 03:30 hrs. The transit permit had not yet been issued, but the team planned to wait at the border if the permit was not issued prior to reaching the state line. The transit permit was issued at 08:42 hrs.

#### **5. Cooling to Liquid Nitrogen Temperature**

The patient arrived at Alcor at 18:03 hrs. The patient's NPT was  $-79^{\circ}\text{C}$ . Computer-controlled cryogenic cooldown was initiated at approximately 18:45 hrs on T+3 days, plunging to  $-80^{\circ}\text{C}$  and descending thereafter at  $-1^{\circ}\text{C}/\text{hour}$  to liquid nitrogen temperature. On T+8 days at 18:17 hrs, an uneventful cooldown was terminated. The patient was transferred to long-term care at liquid nitrogen temperature on T+15 days at 15:17 hrs.

## 6. Timeline and Time Summaries

### Timeline

T-0	16:17	Time of legal death per death certificate
T+1	12:00	Alcor notified of legal death (estimate)
T+1	12:30	Remote funeral home contacted (estimate)
T+1	20:30	DART team arrived on location
T+2	07:36	Patient released by coroner to funeral home
T+2	09:30	Patient packed in dry ice (estimate)
T+3	03:30	Start of ground transport of patient to Alcor
T+3	18:10	Arrival of patient at Alcor (NPT =-78.7°C)
T+3	18:45	Start of cryogenic cooldown
T+8	18:17	Termination of cryogenic cooldown
T+15	15:17	Transfer patient to long-term care in liquid nitrogen

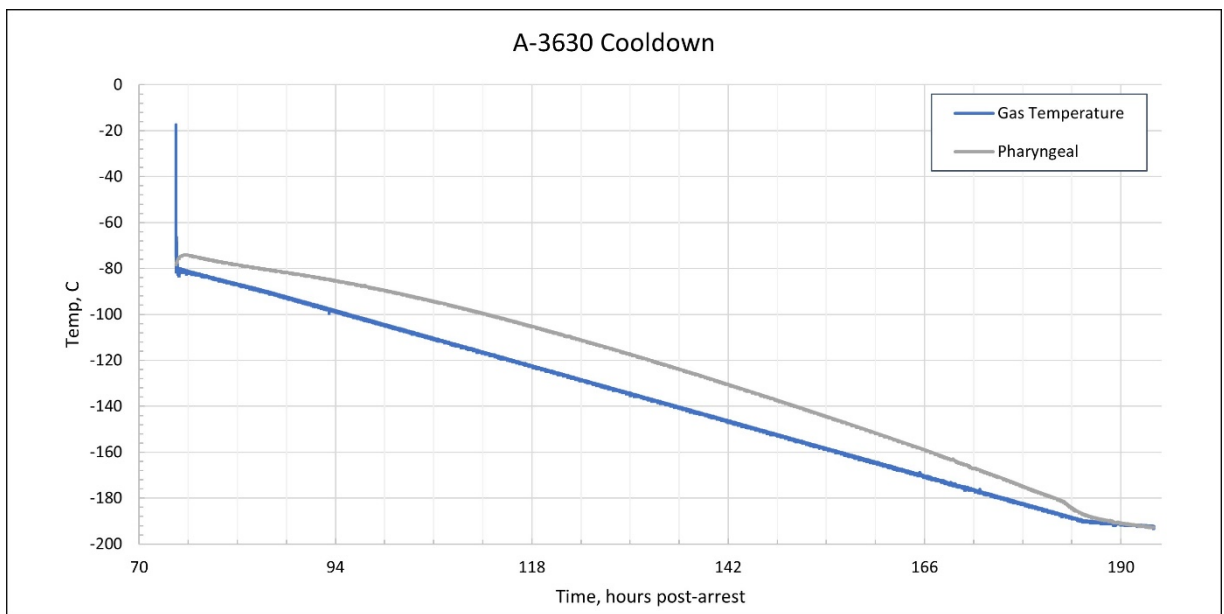
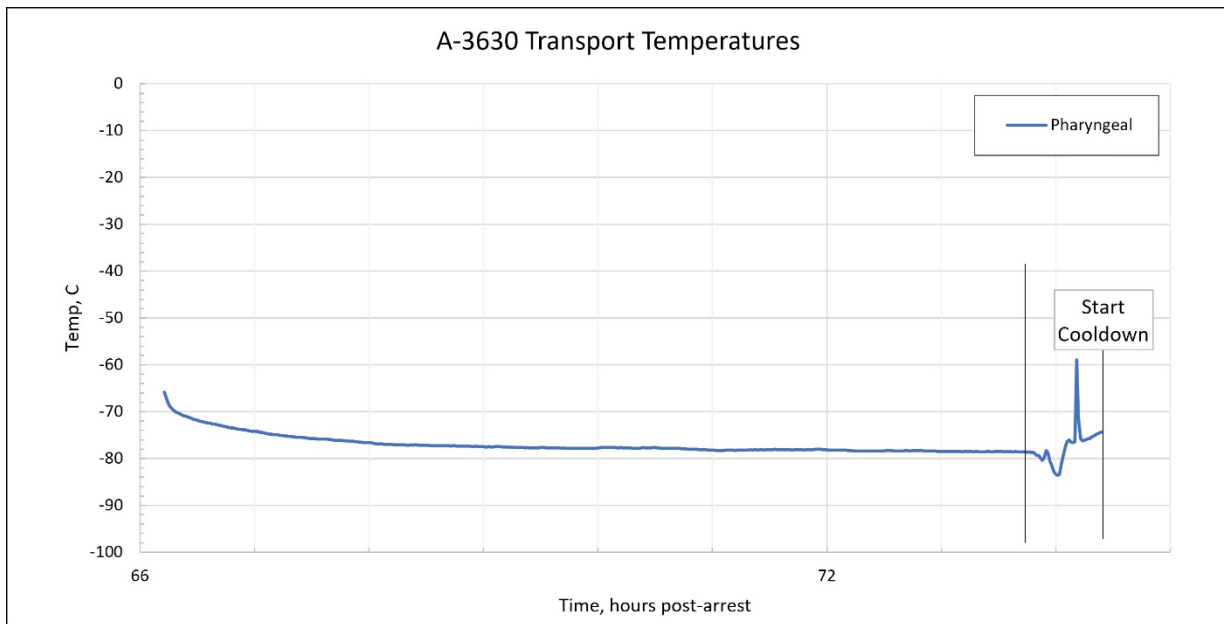
### Time Summaries

19:43	From:	T-0	16:17	Time of legal death per death certificate
	Till:	T+1	12:00	Alcor notified of legal death (estimate)
41:13	From:	T-0	16:17	Time of legal death per death certificate
	Till:	T+2	09:30	Patient packed in dry ice (estimate)
73:53	From:	T-0	16:17	Time of legal death per death certificate
	Till:	T+3	18:10	Arrival of patient at Alcor (NPT =-78.7°C)
00:35	From:	T+3	18:10	Arrival of patient at Alcor (NPT =-78.7°C)
	Till:	T+3	18:45	Start of cryogenic cooldown
74:28	From:	T-0	16:17	Time of legal death per death certificate
	Till:	T+3	18:45	Start of cryogenic cooldown

## 7. Discussion

There were no issues to discuss for this case.

### 8. Cryoprotection and Temperature Graphs



### 9. CT Scans

#### Cryoprotectant Distribution (Post-cryopreservation CT scan)

As this was a whole-body cryopreservation, no post-cryopreservation CT scans were obtained. When the in-house scanner is functional and whole-body patients are being scanned, additional information will be added to this report.