

| НРАР                    | 012                         | UNOS   |  |
|-------------------------|-----------------------------|--|--|
| ПРАР                    | 012                         | UNUS   |  |
| Recovery OPO            | New England<br>MA           | Allocation Via   | UPENN □ nPOD ⊠   |
| Age (years)             | 18                          | DCD  | YES □ NO ⊠   |
| Race                    | Caucasian                   | DBD  | YES ⊠ NO □   |
| Sex                     | M □ F⊠                      | Admission to Cross<br>Clamp  | Hours 43 Mins.   |
| ABO (Rh)                | A1B                         | Cross Clamp Time   | 07/07/2017 @ 06:43 EST                                 |
| BMI (Kg/m²)             | 29.61                       | Cold Ischemia Time*  | Hours 21 Mins.   |
| Cause of Death          | Anoxia                      | Preservation Solution  | UW ⊠ HTK□  |
| Mechanism of Injury     | Drug<br>Intoxication        | Organs Recovered   | Heart □ Kidney ⊠ Lung □ Pancreas ⊠ Liver ⊠ Intestine □ |
| Cardiac Arrest/Downtime | Yes ⊠<br>No □<br>40 Minutes | Intraoperative time lapse from liver to pancreas removal from the peritoneal cavity: | Hours Mins.  |
| CPR / Time              | Yes ⊠<br>No □<br>40 Minutes | Organs Discarded   | Heart ☐ Kidney ☐ Lung ☐ Pancreas ☐ Intestine ☐         |
| Total Est. Downtime     | 40 Minutes                  | Blood Culture  | No Growth  |
| Date /Time of Admission | 07/01/2017<br>@04:00 EST    | PHS High Risk  | YES ⊠ NO □   |
|                         |                             | Acute Lung Injury  | No ARDS  |

<sup>\*</sup>Cold Ischemia time is calculated from time of cross clamp to start of enzyme perfusion for islet isolation.



### Medical History:

|                    |       | Duration   | Medications         | Compliance |
|--------------------|-------|------------|---------------------|------------|
| Type of Diabetes   | None  |            |                     |            |
| History of cancer  | None  |            |                     |            |
| CAD                | None  |            |                     |            |
| Hypertension       | None  |            |                     |            |
| Hyperlipidemia     | None  |            |                     |            |
| Autoimmune disease | None  |            |                     |            |
| Family History     | CAD □ | Diabetes 🗆 | Auto immune disease | Others:    |
|                    |       |            |                     |            |
| Surgical History:  |       |            |                     |            |
|                    |       |            |                     |            |
|                    |       |            |                     |            |
|                    |       |            |                     |            |
| Comments:          |       |            |                     |            |

### **Hemodynamic Profile**

| Average BP During Hospitalization (mmHg) | 110/70                     |                             |
|--|----------------------------|-----------------------------|
| Average Low BP During Hospitalization    | 92/66                      | <b>Duration:</b> 30 minutes |
| Average BP in OR (mmHg)                  | 110/50                     |                             |
| Average Low BP in OR (mmHg)              | 90/42                      | <b>Duration:</b> 15 Minutes |
| Average HR in OR (bpm)                   | 90                         |                             |
| ABG-pH range                             | 7.14 – 7.46intra op (7.45) |                             |

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#### **INTERVENTION**

#### **Blood Products/Meds Transfused Before Organ Recovery**

| Product                   | Amount (ml)   | Units                | Total (ml)             |  |  |
|---------------------------|---|----------------------|------------------------|--|--|
| Fresh Frozen Plasma       | None  |                      |                        |  |  |
| PRBCs                     | None  |                      |                        |  |  |
| Platelets                 | None  |                      |                        |  |  |
| Norepinephrine (Levophed) | 0.5 mcg/Kg/min started d(-5) & stopped in OR ( $\simeq$ 5 days) |                      |                        |  |  |
| Vasopressin               | Started @ 0   | .03 on d(-5) and sto | opped in OR (≃ 5 days) |  |  |
| Neo-Synephrine            | None  |                      |                        |  |  |
| Epinephrine               | None  |                      |                        |  |  |
| Phenylephrine             | None  |                      |                        |  |  |
| Dopamine                  | None  |                      |                        |  |  |

#### **Blood Products/Meds Transfused Intraoperative**

| Product                        | Amount (ml) | Units                  | Total (ml) |
|--------------------------------|-------------|------------------------|------------|
| Fresh Frozen Plasma            | None        |                        |            |
| PRBCs                          | None        |                        |            |
| Platelets                      | None        |                        |            |
| Norepinephrine (Levophed)      |             | 0.04/mcg/Kg/min in     | OR         |
| Vasopressin                    |             | 0.1u/min during OR     |            |
| Neo-Synephrine (phenylephrine) |             | 80 mcg single dose     |            |
| Epinephrine                    | None        |                        |            |
| Dopamine                       | None        |                        |            |
| Heparin                        |             | 30,000                 |            |
| Insulin                        |             | 4.6 u – single dose in | OR         |

#### **Initial Autoantibody Screening (nPOD):**

| GAD-65   | IA-2     |
|----------|----------|
| Positive | Negative |

### Confirmatory results (University of Florida) \*

|                | GAD-65<br>(unit/ml) | IA-2<br>(unit/ml) | Insulin AAB<br>(unit/ml) | ZnT8<br>(unit/ml) | C-peptide<br>(ng/ml) | Proinsulin |
|----------------|---------------------|-------------------|--------------------------|-------------------|----------------------|------------|
| Results        | 0                   | 0                 | -0.001                   | -0.001            | 4.1                  | ND         |
| Cut-off values | 20                  | 5                 | 0.010                    | 0.020             |                      |            |

<sup>\*</sup>Screening sample revealed GAD+, however confirmatory testing by Kornus Elisa of the screening serum sample remained positive for GAD, while the recovery serum was negative. The RIA was negative for GAD in both screening and recovery serum samples.



### HLA (OPO)\*

| Class 1  | Α        | 1        | 24    | Class II | DR   | 4        | 11    |
|----------|----------|----------|-------|----------|------|----------|-------|
|          | В        | 62       | 44    |          | DR51 | Negative |       |
|          | С        | 2        | 10    |          | DR52 | Positive |       |
|          | Bw4      | Pos      | itive |          | DR53 | Positive |       |
|          | Bw6      | Positive |       |          | DQB1 | 7        | 8     |
|          |          |          |       |          | DQA1 | 03       | 05    |
|          |          |          |       |          | DPB1 | 04:01    | 13:01 |
|          |          |          |       |          |      |          |       |
| Comment: | Comment: |          |       |          |      |          |       |

<sup>\*</sup>Methodology:RT-PCR

### Confirmatory HLA (UPENN)\*

| Class 1 | Α | 01:01 | 24:02 | Class II | DRB1 | 11:02 | 04:01 |
|---------|---|-------|-------|----------|------|-------|-------|
|         | В | 15:01 | 44:02 |          | DRB3 | 02:02 |       |
|         | С | 03:04 | 02:02 |          | DRB4 |       | 01:03 |
|         |   |       |       |          | DRB5 |       |       |
|         |   |       |       |          | DQB1 | 03:02 | 03:19 |
|         |   |       |       |          | DQA1 | 03:01 | 05:05 |
|         |   |       |       |          | DPB1 | 04:01 | 13:01 |
|         |   |       |       |          | DPA1 | 01:03 |       |

<sup>\*</sup>HLA typing performed using NGS

### Infectious Disease Serology

|                 |              | Hemo/Plasma Dilution Status |               |  |
|-----------------|--------------|-----------------------------|---------------|--|
| Test            | Result       | Qualified                   | Non-Qualified |  |
| EBV IgG         | Positive     | Yes                         |               |  |
| EBV IgM         | Negative     | Yes                         |               |  |
| CMV             | Non-Reactive | Yes                         |               |  |
| HBcAb           | Non-Reactive | Yes                         |               |  |
| HBsAg           | Non-Reactive | Yes                         |               |  |
| HCV Ab          | Non-Reactive | Yes                         |               |  |
| HIV I/II        | Non-Reactive | Yes                         |               |  |
| Syphilis        | Non-Reactive | Yes                         |               |  |
| Procleix Ultrio | Non-Reactive | Yes                         |               |  |
| Ultrio HBV      | ND           |                             |               |  |
| Ultrio HCV      | ND           |                             |               |  |
| Ultrio HIV      | ND           |                             |               |  |
| Toxoplasma Ab   | Negative     | Yes                         |               |  |



#### **Laboratory Panel**

|                               | Initial | Peak | Terminal |
|-------------------------------|---------|------|----------|
| Na (mEq/L) (140-160)          | 143     | 166  | 153      |
| Creatinine (<1/5)             | 0.88    | 0.88 | 0.5      |
| Glucose (mg/dL) (60-150)      | 362     | 362  | 246      |
| HbA1C%                        | 4.5     |      |          |
| Total bilirubin (<1.5)        | 0.2     | 0.5  | 0.3      |
| SGOT (AST) (0-4)              | 360     | 360  | 45       |
| SGPT (ALT) (5-35)             | 403     | 443  | 75       |
| Alkaline phosphatase (45-110) | 71      | 199  | 97       |
| Serum Amylase (23-851)        |         |      | 31       |
| Serum Lipase (u/L)            | 66      | 66   | 17       |
| WBC (THO/uL) (4.5-11.0)       | 12.8    | 20.6 | 17       |
| Hgb (g/dL) (12-16)            | 11.7    | 17.2 | 9.9      |
| Platelets (THO/uL) (150-350)  | 209     | 334  | 115      |
| INR (<2.0)                    | 1.5     | 1.5  | 1.1      |

#### Urinalysis

|         | 1 <sup>st</sup> | 2 <sup>nd</sup> | 3 <sup>rd</sup> | 4 <sup>th</sup> |
|---------|-----------------|-----------------|-----------------|-----------------|
| Glucose | Negative        | Negative        | Negative        | Positive (1000) |

#### **Medications During Hospitalization**

| Steroids**                 | None  |         |
|----------------------------|---|---------|
| Diuretics                  | None  |         |
| T3 Protocol                | None  |         |
| T4 Protocol*               | Yes – started @ d(-1) and stopped in OR ( $\simeq$ 18 hrs.) |         |
| Insulin**                  | 4.6 units in OR   |         |
| Antihypertensive           | None  |         |
| Vasodilators               | None  |         |
| DDAVP**                    | None  |         |
| Total parenteral nutrition | None  |         |
| Other                      |   | Specify |

<sup>\*</sup>T4 protocol: Levothyroxine, (20 mcgs), Solumedrol (2 gms,) Dextrose 50%, (1 amp), Regular Insulin (20u), Vasopressin (1 unit)

Mi Z, Novitzky D, Collins JF, Cooper D KC. The optimal hormonal replacement modality selection for multiple organ procurement from brain-dead organ donors. Clinical Epidemiology 2015:7 17-27.



\*\* Excluding T4 Protocol

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