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# **Safety Issues in Living Donor Kidney Transplant Identified by a Proactive Web-based Safety Debriefing Tool**

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Northwestern University  
Feinberg School of Medicine

# PRESENTER DISCLOSURES

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**The following personal financial relationships  
with commercial interests relevant to this  
presentation existed during the past 12 months:**

## **NO RELATIONSHIPS TO DISCLOSE**

- *I have no financial relationships to disclose within the past 12 months relevant to my presentation.*
- *My presentation does not include discussion of off-label or investigational use.*
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# SAFETY RISKS

Healthcare is a complex field with many safety risks



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# RECOGNIZING RISKS



## Marbles → Safety Risks

- Just we avoid stepping on the marbles → we navigate around risks

A systems approach allows us to *identify the safety risks*

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# TRANSPLANT SAFETY RISKS

## The New York Times

November 18, 2007

### Infected Patient's Lawyer Says Risk Wasn't Disclosed

By THE ASSOCIATED PRESS

A woman in  
told that the  
her lawyer s

The lawyer,  
woman, ask  
involving th

## Los Angeles Times

### Wrong patient got kidney at USC

*USC University Hospital shut down its kidney transplant program last month after realizing the error. The hospital said transplants may res*

February 18, 2011 |

USC University Hospital  
transplanted into the w  
transplants in Los Ange

## THE MONITOR

### McAllen teacher dies after donating kidney to her mother

[Naxiley Lopez](#)

2011-02-12 20:30:27

McALLEN — Myra Lee Martinez died Tuesday after saving her mother's life.

The 28-year-old McAllen Memorial High School teacher underwent a kidney transplant in San Antonio Jan. 28 to help her mother, who was undergoing dialysis after becoming ill about a year ago, said Martinez's father, Juan R. Martinez.

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# SAFETY BRIEFINGS

**A systems approach:**



**Safety Briefings**

**Key Modifications for transplantation:**

- **Web-based**
- **Anonymous**

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# SAFETY DEBRIEFINGS

## Strengths

- Proactive
- Multiple perspectives
- Immediate recall
- Improves safety culture
- Identifies opportunities for improvement

## Limitations

- May not capture all contributing factors
- May be inconsistent
- Response rate challenges



# SAFETY DEBRIEFINGS

- Near Misses
- Systems Issues
- Minor Incidents
- Medical Errors
- Safety Risks
- Annoyance/Frustrations



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# SAFETY DEBRIEFINGS

Each debriefing yields unique information



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# WEB-BASED SAFETY DEBRIEFINGS

## NUTORC TRANSPLANTATION SAFETY DEBRIEFING HOME

Select your

### SETTING AND ROLE

Project Title

Principal Investigator

Supported by

The purpose of

This safety

access to it

Please select

### ORGAN AND PATIENT TYPE

Surgical Procedure

Surgical Procedure

-Click Here-

SUBMIT

Please select the organ

Liver (Living Donor)

Please select which type

Recipient in your description

-Click Here-

BACK

SUBMIT

### ISSUE IDENTIFICATION: PAGE 1 OF 2

Progress: 40%

We would like to ask you to comment on several areas and select from the following options: Not Applicable, No Issue(s), or Issue(s) Occurred (see description). You will be asked for further details on those areas in which you indicate that an issue occurred. Please describe any and all related issues.

We are interested in any and all issues or problems you experienced or witnessed, even if they are minor and had no impact on the outcome of today's procedure (near misses). Please do not use any names (patients, clinicians, staff, etc.) when answering the questions.

Please note, you can click on the (?) symbol next to each area category to view example issues.

Communication with the Patient and Family (?)  Not Applicable  No Issue(s)  Issue(s) Occurred (see description)

Informed Consent (?)  Not Applicable  No Issue(s)  Issue(s) Occurred (see description)

Briefly describe: Consent form for recipient liver biopsy not in patient folder

Inter-Provider Communication (?)  Not Applicable  No Issue(s)  Issue(s) Occurred (see description)

Distractions (?)  Not Applicable  No Issue(s)  Issue(s) Occurred (see description)

OR Scheduling/Coordination (?)  Not Applicable  No Issue(s)  Issue(s) Occurred (see description)

Briefly describe: Last minute room change

Patient Identification (?)  Not Applicable  No Issue(s)  Issue(s) Occurred (see description)

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# WEB-BASED SAFETY DEBRIEFINGS

ISSUE IDENTIFICATION: PAGE 1 OF 2



We would like to ask you to comment on several areas and select from the following options: Not Applicable, No Issue(s), or Issue(s) Occurred (see description). You will be asked for further details on those areas in which you indicate that an issue occurred. Please describe any and all related issues.

We are interested in any and all issues or problems you experienced or witnessed, even if they are minor and had no impact on the outcome of today's procedure (near misses). Please do not use any names (patients, clinicians, staff, etc.) when answering the following questions.

Please note, you can click on the [\(Example\)](#) link next to each area category to view example issues.

[Communication with the Patient and Family](#)  
(Example)

Not Applicable  No Issue(s)  Issue(s) Occurred (see description)

[Informed Consent](#) (Example)

Not Applicable  No Issue(s)  Issue(s) Occurred (see description)

[Inter-Provider Communication](#) (Example)

Donor case  Recipient case  Both cases

Not Applicable  No Issue(s)  Issue(s) Occurred (see description)

Briefly describe: Surgeon disrespectful and yelling at anesthesiologist

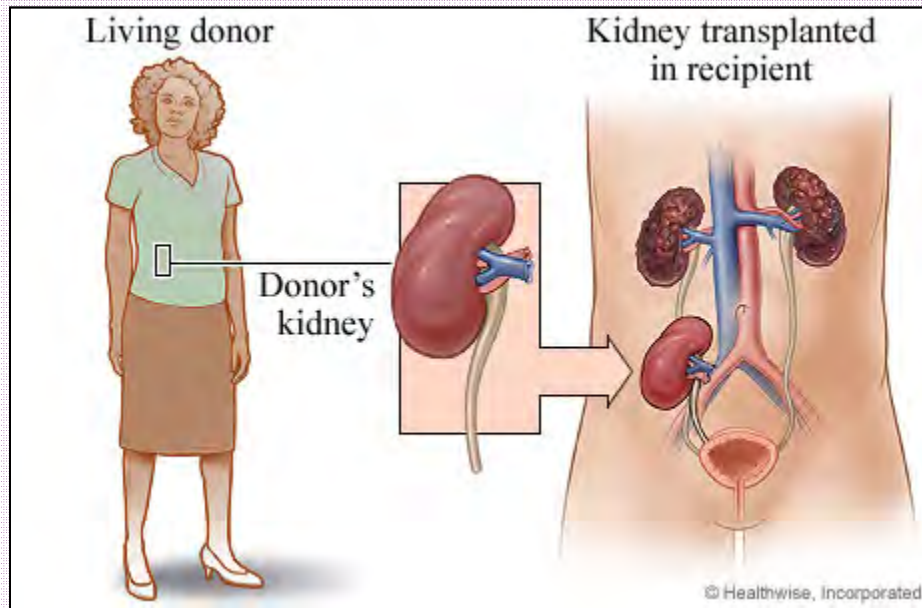
[Distractions](#) (Example)

Donor case  Recipient case  Both cases

Not Applicable  No Issue(s)  Issue(s) Occurred (see description)

Briefly describe: pagers continuously going off and phone ringing

# RESULTS



- **152 LDKT**
- **3/09-3/11**
- **235 debriefings**



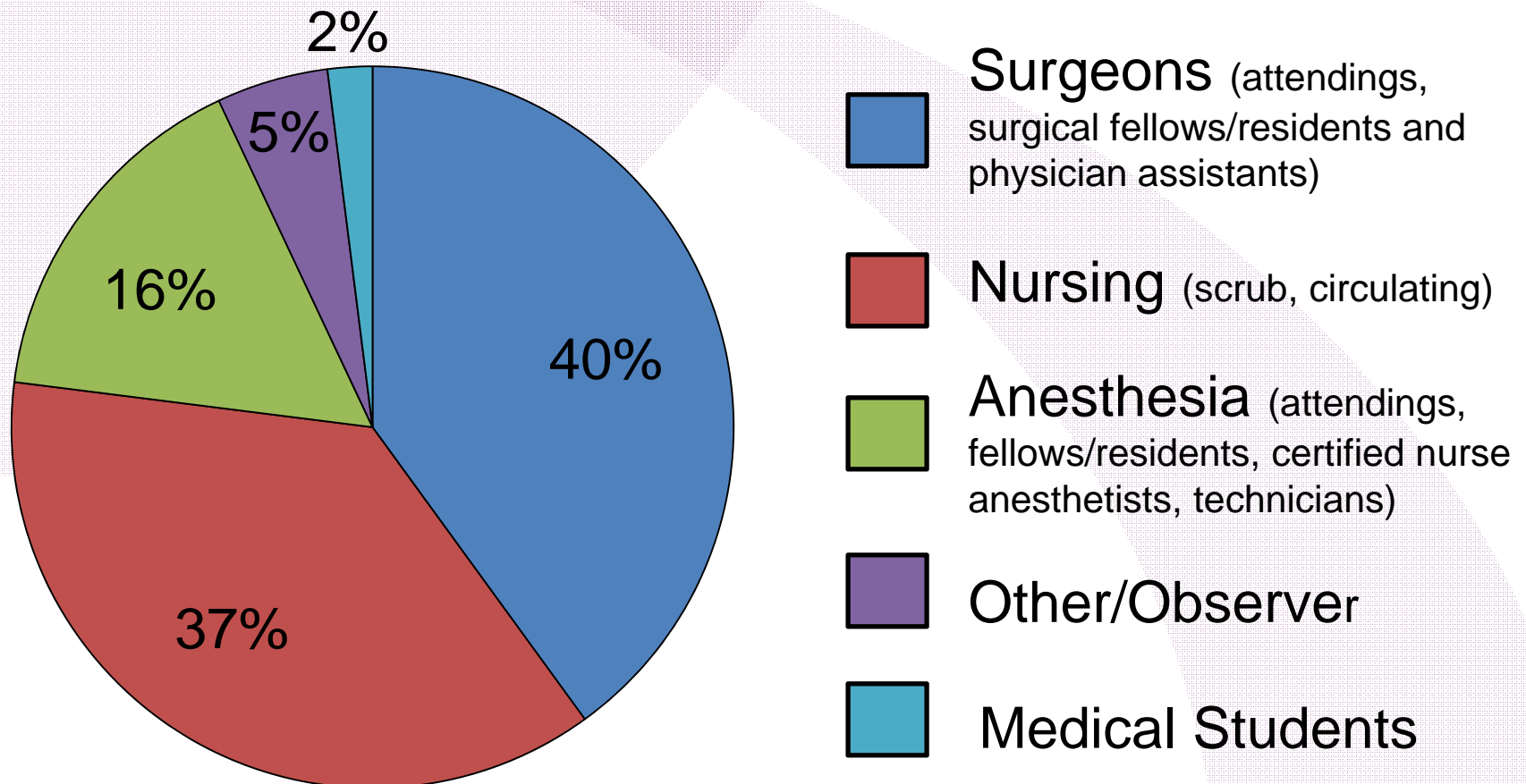
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# RESULTS

**13** types of respondents completed debriefs, representing the entire clinical team:



# RESULTS

ISSUE COUNT	DEBRIEFS	PERCENT
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<b>Issue Count: 0</b>	<b>120</b>	<b>51%</b>
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<i>Issue Count: 1</i>	<i>41</i>	<i>17%</i>
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<i>Issue Count: 2</i>	<i>35</i>	<i>15%</i>
-----------------------	-----------	------------

<i>Issue Count: 3</i>	<i>27</i>	<i>11%</i>
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<i>Issue Count: 4</i>	<i>5</i>	<i>2%</i>
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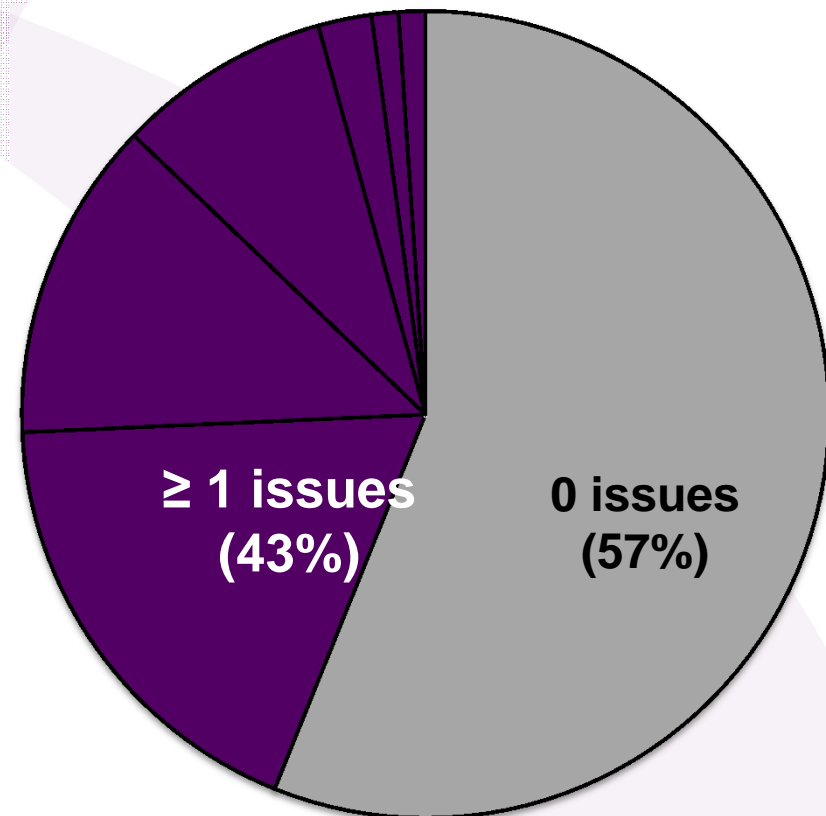
<i>Issue Count: 5</i>	<i>3</i>	<i>1%</i>
-----------------------	----------	-----------

<i>Issue Count: 6</i>	<i>1</i>	<i>&lt;1%</i>
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<i>Issue Count: 7</i>	<i>0</i>	<i>0%</i>
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<i>Issue Count: 8</i>	<i>3</i>	<i>1%</i>
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<b>Issue Count <math>\geq 1</math></b>	<b>115</b>	<b>49%</b>
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# RESULTS

## 5 most frequently reported safety issues:

ISSUE	EXAMPLE OF SAFETY VULNERABILITY	#	%
<b>Equipment</b>	Small retractor missing correct blades	34	16%
<b>OR Scheduling/ Coordination</b>	OR room was changed 4 times	21	10%
<b>Distractions</b>	Circulating nurse expected to answer non-urgent pages and cell phone calls	21	10%
<b>Procedure Preparations</b>	Could not be verified in the medical record that the patient actually received the peri-operative antibiotics	15	7%
<b>Inter-provider Communication</b>	Inadequate communication between surgery and anesthesia teams regarding preoperative treatment of hyperkalemia	15	7%

# RESULTS



## Hospital Reporting System (NETS)

- **27** safety events reported

## Transplant Safety Debriefings

- **250** safety issues reported



# CONCLUSIONS

- Hospital-based reporting system vastly under estimated safety issues
  - NETS: ~10% the number of issues
- Extensive, granular data on safety issues
- Prospectively risk assessment before harm occurs
- Used in combination with observation, Failure Modes Effects Analysis, and medical record review

# SAFETY IMPROVEMENTS



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# TRANSPLANT SAFETY IMPROVEMENTS

## Identifying and Eliminating Risks:



## Distractions:

- New policy banning cell phones from the OR\*

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# TRANSPLANT SAFETY IMPROVEMENTS

## Identifying and Eliminating Risks:



## Access to Necessary Clinical Data:

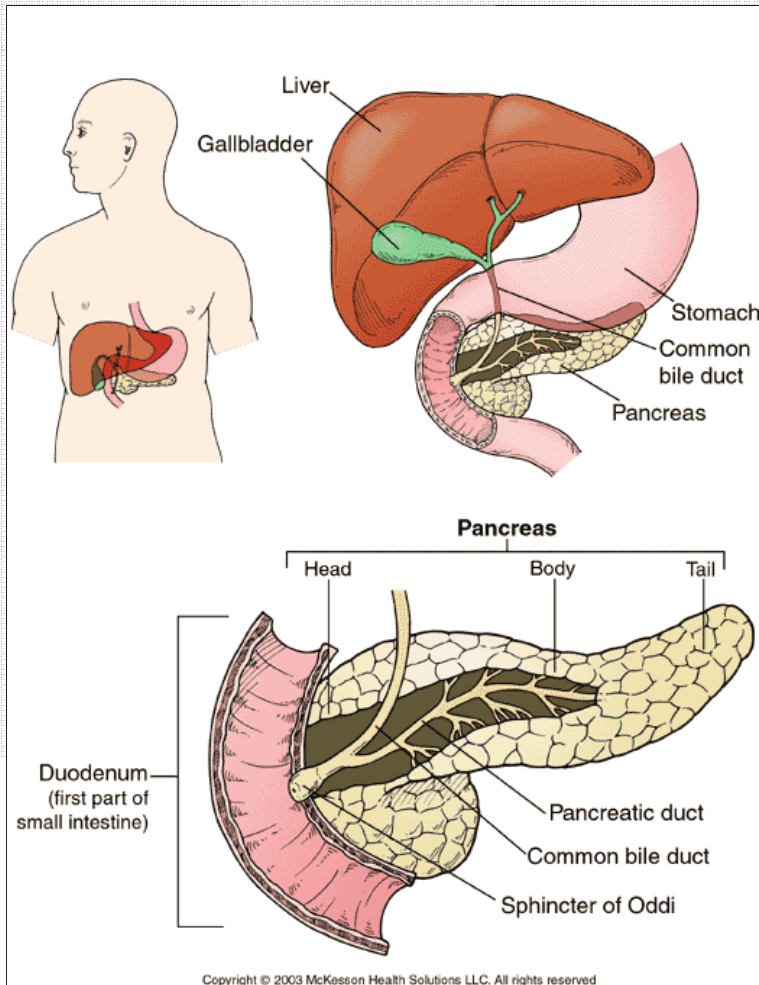
- Consistent comments related to OTTR access for other services

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# NEXT STEPS: Other Transplants



# NEXT STEPS: Organ Procurement



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# NEXT STEPS: Other Centers



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# QUESTIONS

Thank you for your time!

Please contact Olivia Ross at  
[o-ross@northwestern.edu](mailto:o-ross@northwestern.edu) or  
visit [www.nutorc.org](http://www.nutorc.org) for more information



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