THE ROLE OF THE ADVANCED PRACTICE PROVIDER IN PEDIATRIC TRANSPLANT

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Agenda

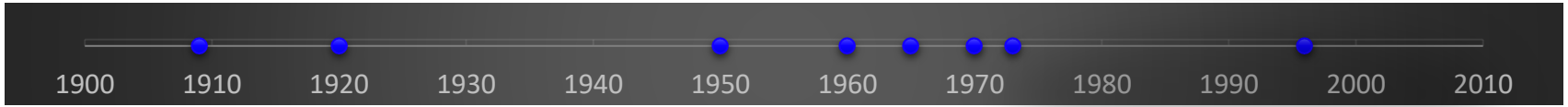
- Introduction
- Pre-transplant Role of the PNP
- Inpatient (Peri-Transplant) Role
- Post-Transplant Role
- Broader Roles of the PNP
- Education

History of Transplant

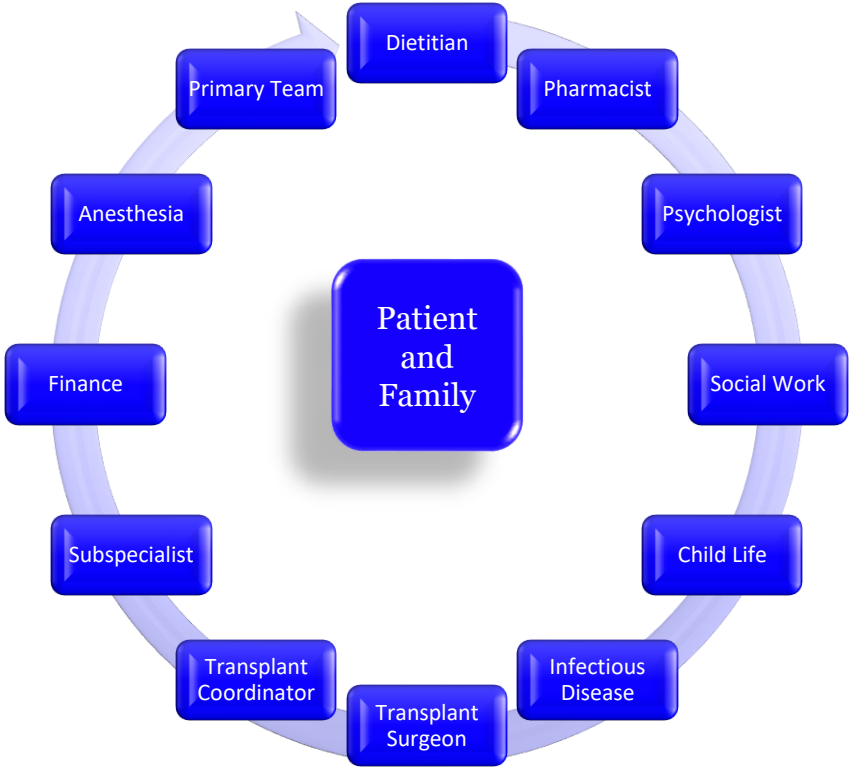
- Kidney, 1952, unsuccessful followed a successful transplant in 1954
  - Pediatrics: 1959
- Liver, 1963, successful by Dr. Thomas Starzl
  - Pediatrics: 1967
- Lung, 1963, successful by Dr. James Hardy
  - Pediatrics: 1987
- Heart, 1967, Dr. Christiaan Barnard
  - Pediatrics: 1967

History of Advanced Practice Nurse

- Advanced practice nurse
  - 1909: First advanced nursing specialty: nurse anesthesia
  - 1920s: Nurse midwifery
  - 1950s: Clinical nurse specialist
- Nurse practitioner
  - Role was created in the 1960s by Dr. Loretta Ford and Dr. Henry Silver[1]
  - 1965 Medicare and Medicaid was established[2]
  - First NP education program was at University of Colorado 1965[2]
  - The National Association of Pediatric Nurse Practitioners, 1973[2]
  - 1996 Doctor of Nursing Practice



It Takes a Village



Multidisciplinary Team

Importance in Solid Organ Transplant

- Ensures Comprehensive Care
- Facilitates Individualized Treatment
- Improves Outcomes
- Supports Patients and Families
- Enhances Communication and Safety

The Role of the Advanced Practice Provider

> *Transplant pediatric nurse practitioners are in a unique position to expand the care for pediatric transplant patients by assuming the role of clinician, educator, administrator, and coordinator”*[2]

Pre transplant role

Pre-transplant role

- Clinical Management
- Interdisciplinary Collaboration
- Patient/Family Education
- Advocacy and Support

Pre-Transplant Role of the APP

Referral

- Receive referral from physicians
- Create the encounter, send to finance
- Responsible for calling family, chart review, placing orders for evaluation

Evaluation

- APP sees the patient with transplant surgery, presents the history to the physician, writes the note
- Presents the patient at MDM

Waitlist

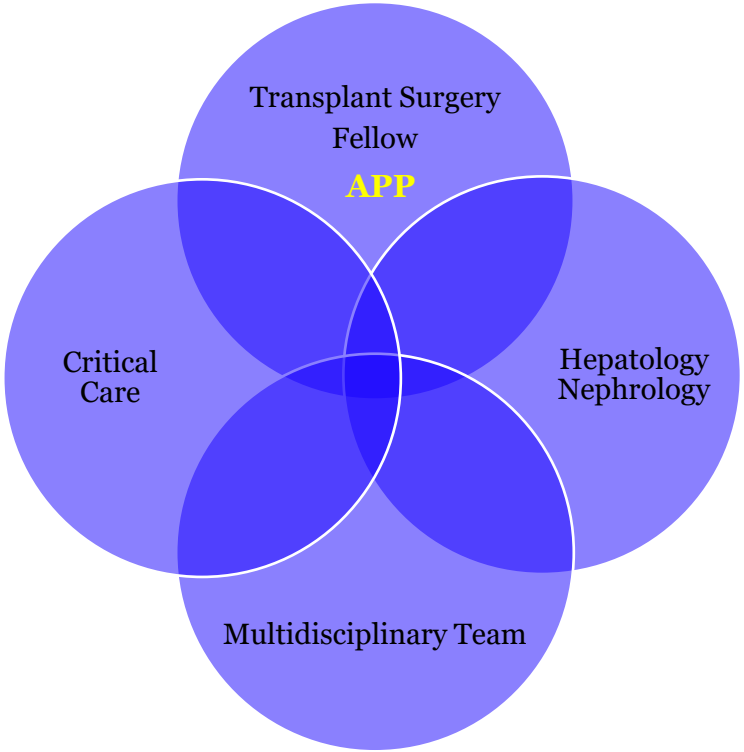
- Collaborates with the team and sees the patient monthly in clinic

Peri-transplant role

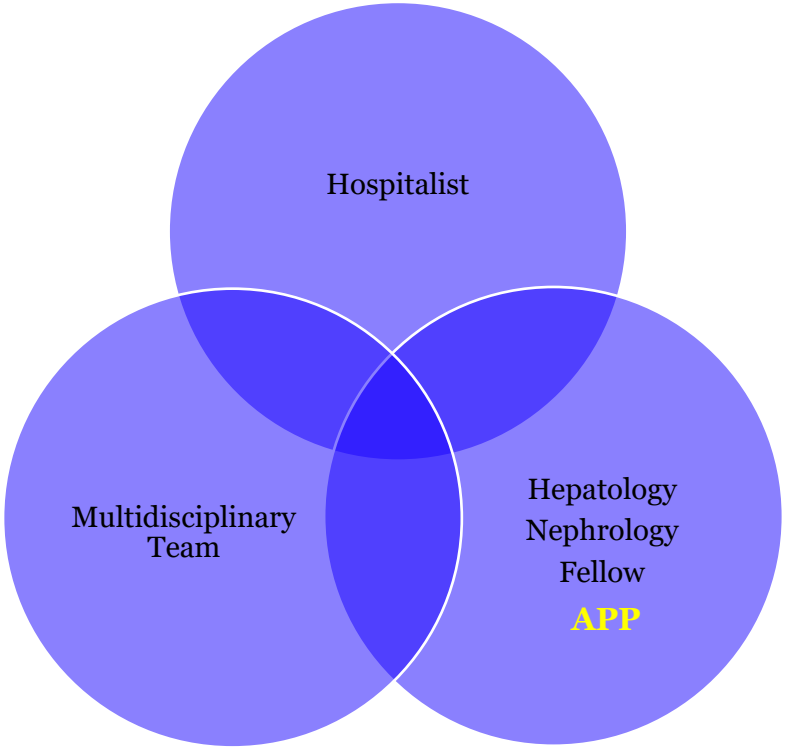
Peri-transplant role (Inpatient)

- Clinical Management
- Interdisciplinary Collaboration
- Patient/Family Education
- Advocacy and Support

Clinical Care Model-Transplant Admission



Clinical Care Model-Readmission



Transplant

- Admission
  - History and Physical
  - Admission Orders, confirm regulatory labs are sent
  - Consents
- Management
  - MD rounds with ICU
  - Manage fluid status, immunosuppression, lab cadence, prophylaxis, nutrition, imaging, anti-coagulation
  - Once transfer to floor, all care
- Discharge
  - Rooming-In Phases
  - Determine readiness
  - Medication reconciliation
  - Coordination

Readmission

- Admission
  - Give sign out to primary team
  - Consulting team with note
- Management
  - Infusion dosing for rejection
  - Schedule IR, procedures
  - Biopsy orders, coordination
  - Inpatient liver transplant evaluation
- Discharge
  - Medicine reconciliation for immunosuppression medications
  - Outpatient follow up with coordination of labs
  - Transplant specific discharge instructions and medication guide

Post-transplant role

Post-Transplant Role

- Clinical Management
- Interdisciplinary Collaboration
- Patient/Family Education
- Advocacy and Support

Broader Role of the Advanced Practice Provider

Broader Roles of the Advanced Practice Provider

Quality Improvement

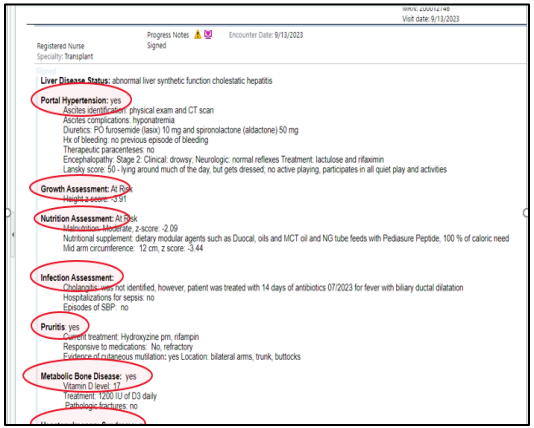
Clinical Education

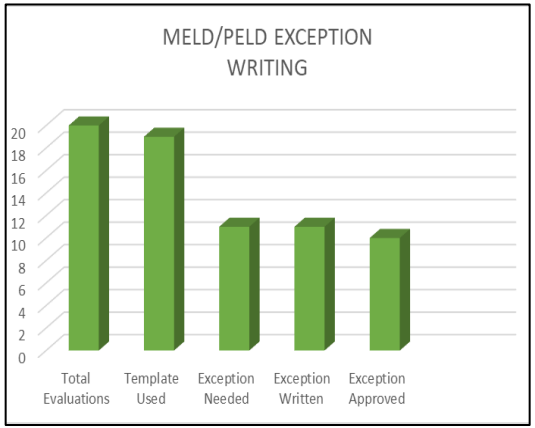
Quality Improvement

“Initiatives provide excellent opportunities for nurse practitioners (NPs) to leverage our clinical expertise as active participants in practice changes that improve outcomes, thereby maximizing our impact and highlighting our valuable role in populations, organizations, and the health care industry” Dunlap & Waldrop[3]

Quality Improvement Projects

MELD/PELD exception writing: Streamlined documentation of liver disease complications in the liver transplant evaluation note





Transplant Evaluation Note Template

Transplant evaluation template created that accounts for categories that lead to exception points

Outcomes

Source documentation in one place

Disseminated the Information

Presented abstract at the 2023 conference in Montreal, CA

Implementation of Transplant Core Nurse Team to Support Interprofessional Discharge Education and Rooming In For Caregivers of Children After Solid Organ Transplant

Transplant Core Nurses

- A core nursing team compromised of clinical nurses with demonstrated expertise, accountable to provide specific education to patients and families following a pre-determined timeline with specific educational milestones

Identified Candidates

Needed to already have transplant education, experience in caring for population

Collaboration and Creation

Group of charge RNs met to determine coverage needed. 8-10 nurses were chosen based on interest, experience, and shift worked

Education

Education day provided with mandatory attendance with expectations, importance of role, they fit into the discharge timeline

Progressing from Transplant to Discharge: A generalized Rooming-In process following Pediatric Liver and Kidney Transplantation

Rooming-In

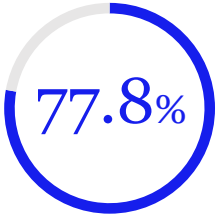
Facilitates the transition of the patient and family from hospital to home prior to discharge with a safety net available to answer questions and troubleshoot challenges (American Academy of Pediatrics, 2008)

Goal

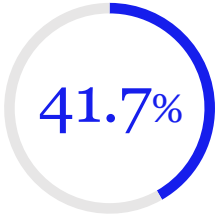
Strengthen and reinforce post-op education, reduce parental anxiety related to transplant care, offer comprehensive medication education, with bidirectional open lines of communication

1 year Infection Rate Outcomes

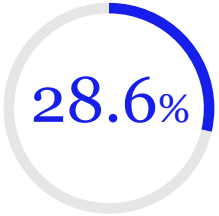
Bacterial infections occur in 59% to 68% of the patients after liver transplantation with half being surgical or blood stream infections occurring within two weeks after transplant (Singh et al., 2015)



Liver 2023

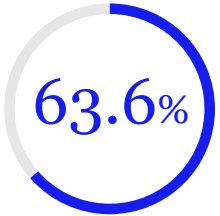


Liver 2024

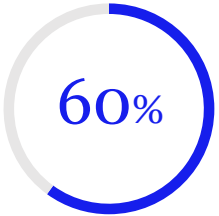


Liver 2025

Kidney 2023

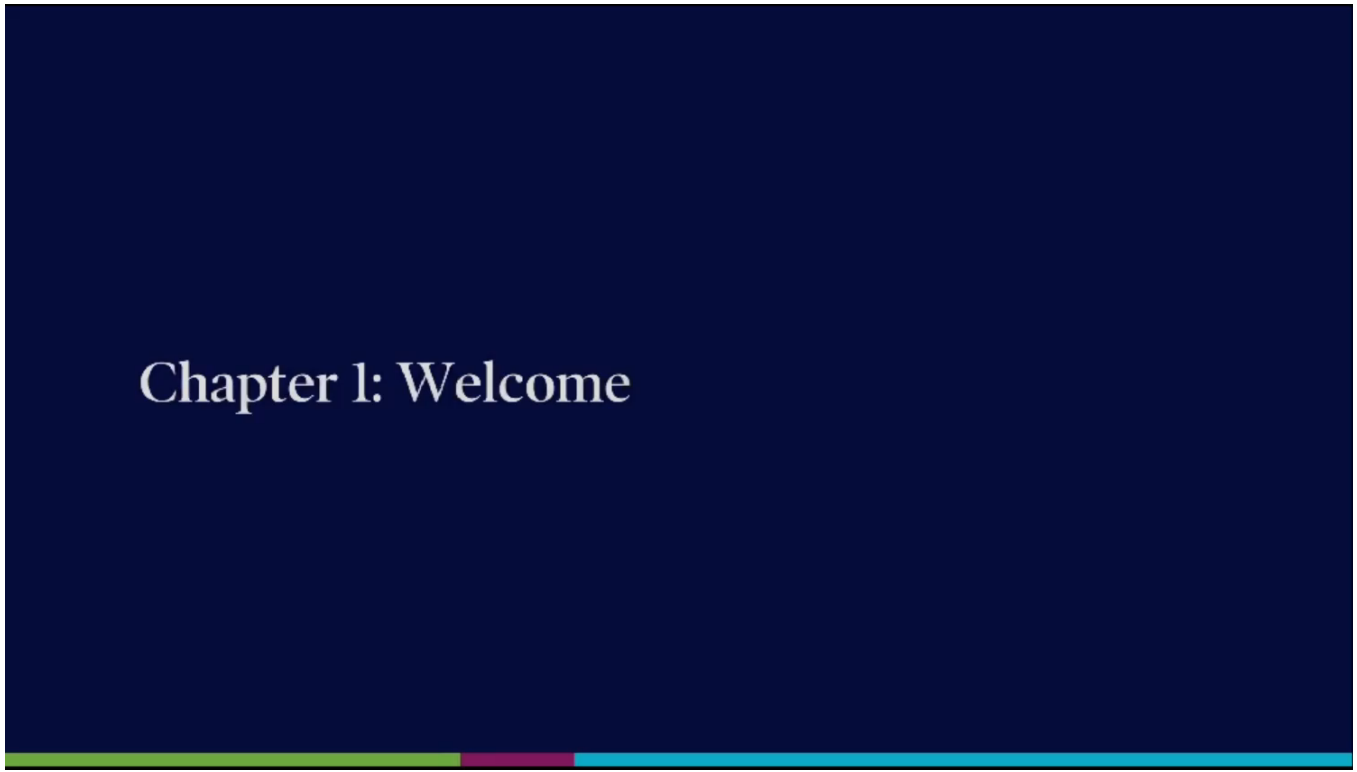


Kidney 2024



Kidney 2025

Discharge Video Project

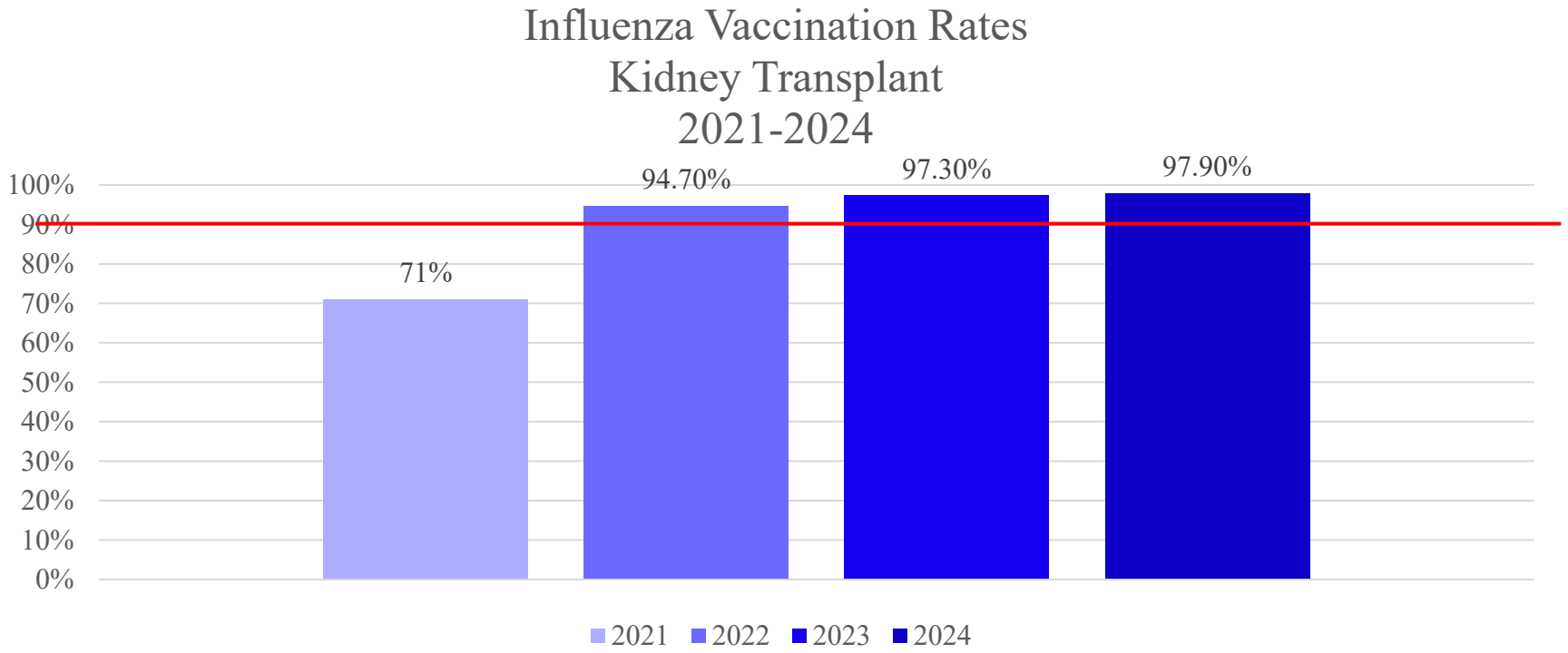


Flu Vaccine Initiative

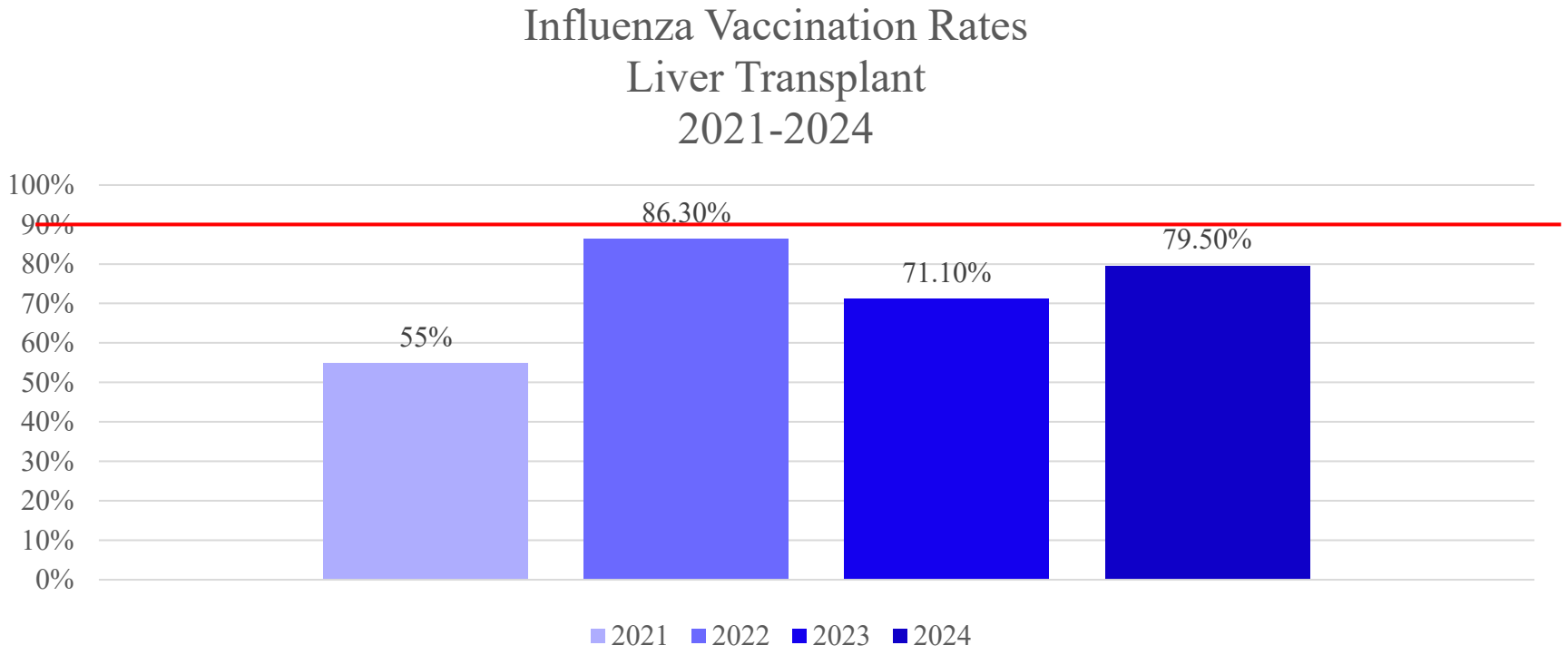
- Low vaccination rates observed in 2021

- Hospitalization risk for pediatric transplant recipients is 87 times higher

Results


Influenza Vaccination Rates
Kidney Transplant
2021-2024
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
71%
94.70%
97.30%
97.90%
2021
2022
2023
2024

Results

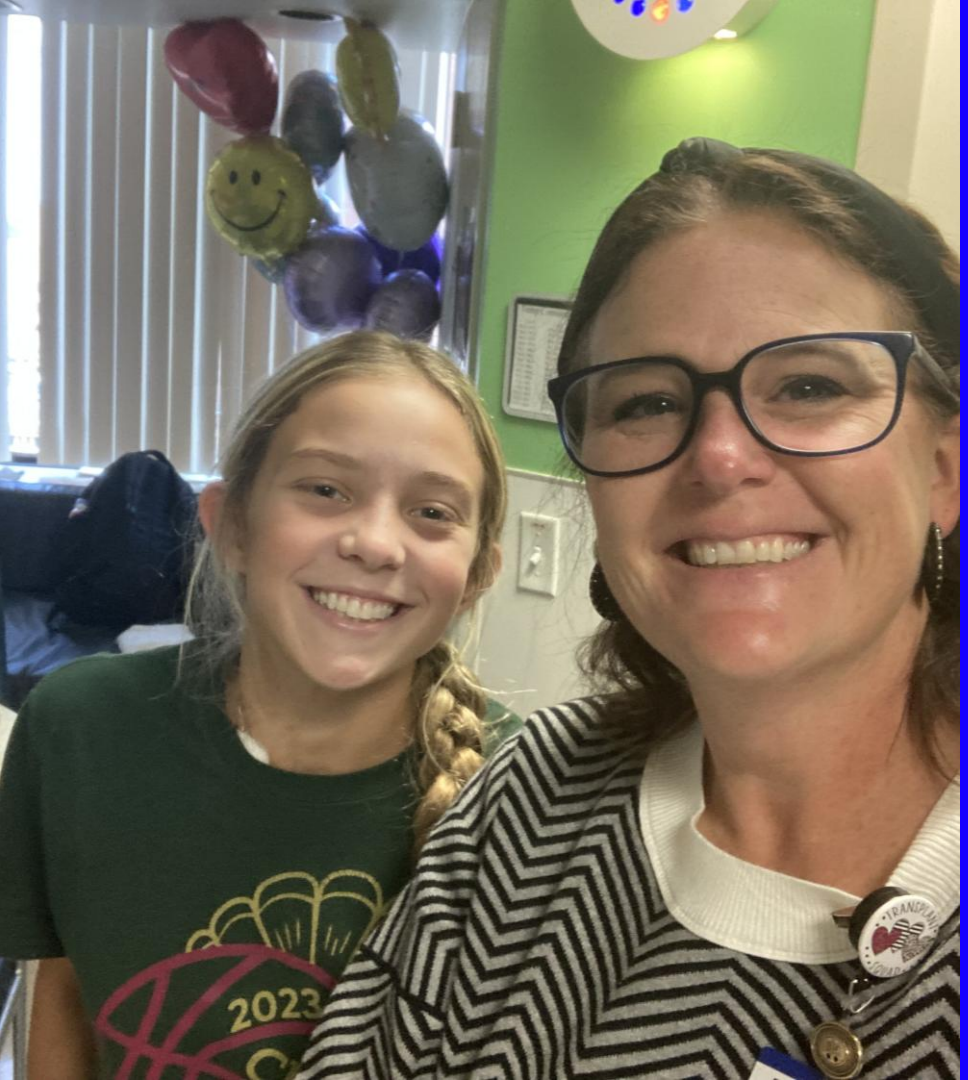

Influenza Vaccination Rates
Liver Transplant
2021-2024
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
55%
86.30%
71.10%
79.50%
2021
2022
2023
2024

Education

Passing on the knowledge

Advanced Practice Provider Involvement

- New Nurse Education
- Transplant Core Nurse Education
- Bootcamp
- Lunch and Learns
- Fellow education
- Ongoing education



Transplant isn't just about replacing an organ—it's about restoring a life. As a nurse practitioner, I have the privilege of walking with the patients through their most fragile moments and witnessing their strength rise again"

-Unknown

Questions:

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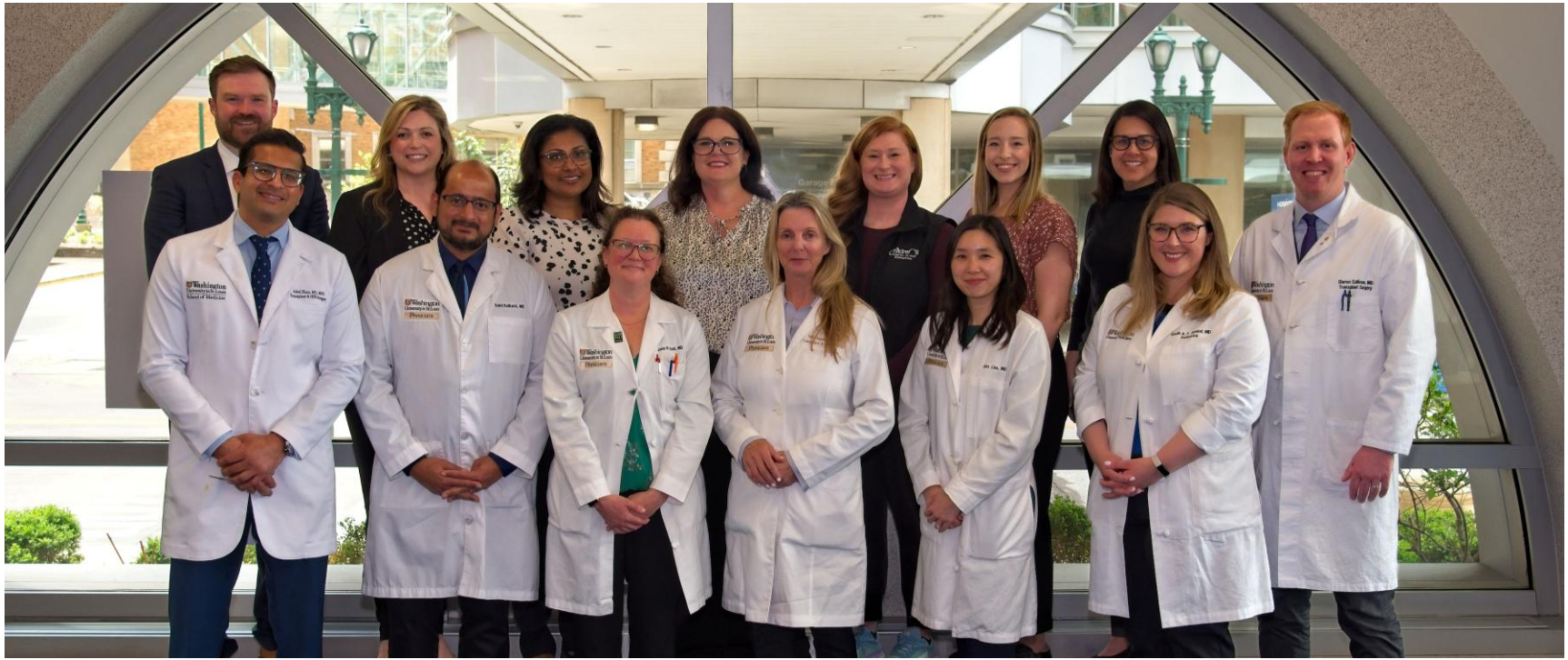

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