

# Meeting the Staffing Issues of Hemodialysis Programs.....

## A Skill Mix Model



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May 3, 2008

# Objectives

- Why staffing is an issue and will be an issue of the future
- Why the Skill Mix Model is the right model to sustain HD Programs now and in the future
- How the SRDP successfully implemented the skill mix model
- What does the future hold for the Skill Mix Model

**Traditionally:**

**HD Programs were staffed  
by RN's**



**However??????**

# Current Trends of RN's

- 1998: 2925 new RNs' registered in Ont
- 2007: 2343 new RNs' registered in Ont

25 % ↓ RN registrations for the past 10 years.....a trend that is expected to continue ....from University and College admission offices

# Current Trends of RN

- Mean age of RNs': 50 yrs of age
- Average age of RNs' for 2007: 45.9 years



**Mean age**

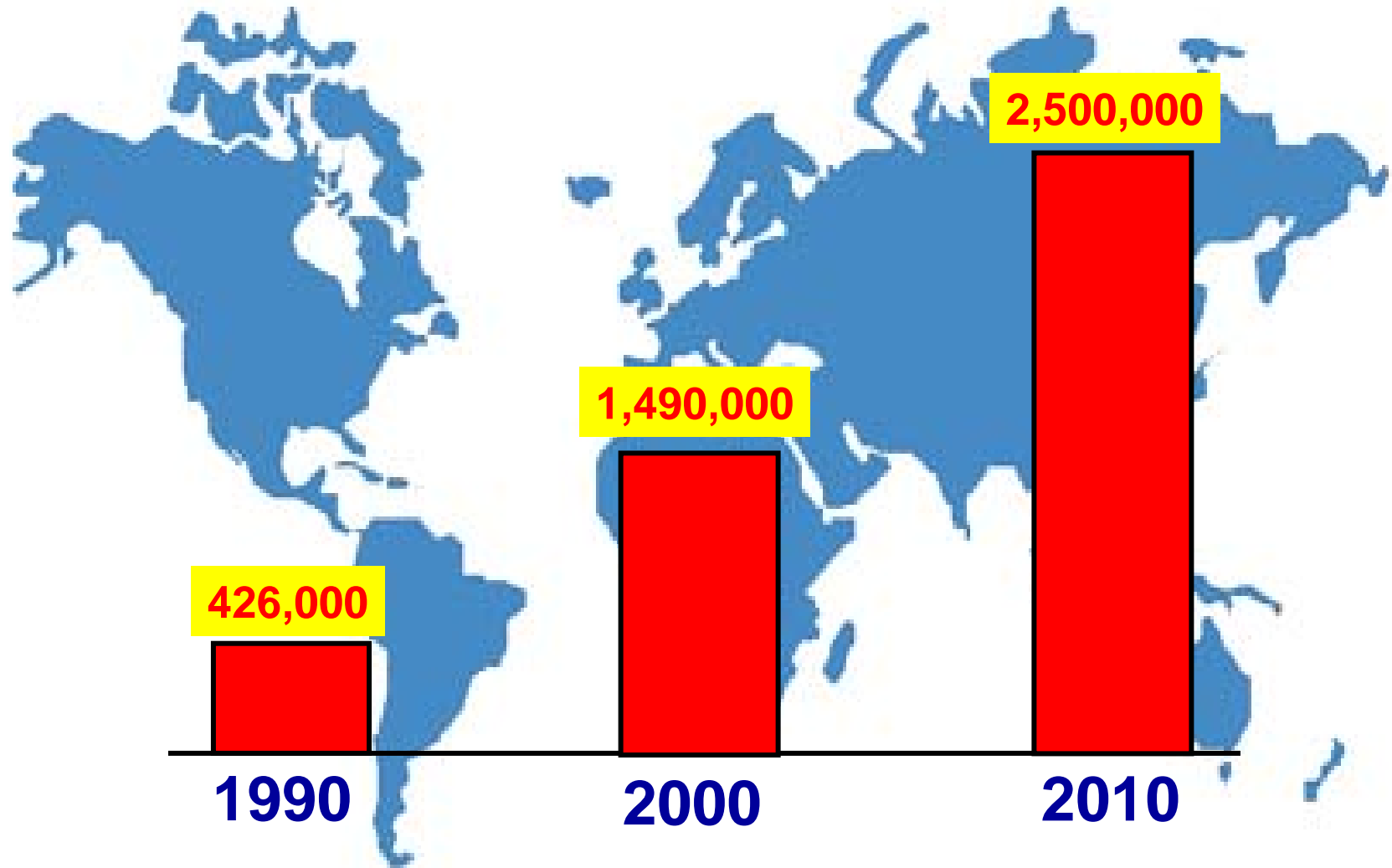


**Average age**

**Despite the impending nursing shortage,  
Dialysis Population Grows.....**



# Number of patients worldwide treated with chronic dialysis from 1990 to 2010



(Slide courtesy  
Dr John Dirks, UHN)

Lysaght, J Am Soc Nephrol, 2002

**SRDP is destined for growth  
along with the world**





# Scarborough Regional Dialysis Program (SRDP) Hemodialysis

## Components:

- ❖ in-centre HD: 44 stations
- ❖ satellite HD: 18 stations
- ❖ satellite affiliated with chronic care : 6 stations
- ❖ new satellite HD: 12 Stations (Opening Oct 2008)

# The **big question??**

**How do we maintain the provision of quality care being provided by regulated health care workers??**



By tapping into another regulated  
health professional group.....

***The RPN***

# Current Trend of RPN in Ontario

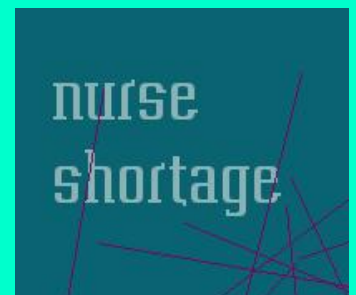
- 1998 – 1158 new RPN
- 2007 – 2031 new RPN

## Trend:

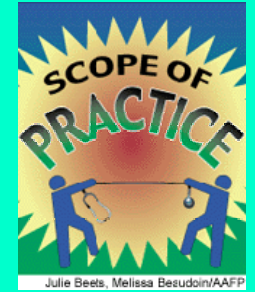
- 45% ↑ in RPN registration in the last 10 years
- RPN education augmented to meet added nursing competencies in 2005

# Human Resource

- In the next 20 years large volume of RNs' will be retiring
- Shortage of RNs in the foreseeable future
- An initiative to incorporate RPN in HD was undertaken to ensure SRDP has a regulated, licensed, professional workforce to meet the needs of our patients



# Scope of Practice



- In Ontario, two categories of nursing: RN & RPN
- “All nurses are accountable for their decisions and actions and the consequences of those actions. Nurses are not accountable for the actions and decisions of other nurses or care providers in situations in which they have no way of knowing of those actions”

College of Nurses, Utilization of RN and RPN,  
Practice Guideline, :Dec 2005

# Scope of Practice (con't)



- Based on this Scope of Practice of RPN, The Scarborough Hospital developed an framework for the RPN working in the SRDP- the skill mix model
- This model was designed to maximize the scope of practice of RPN ie.
  - Line and prime machine
  - Cannulate AVG, AVF
  - Access TCC
  - Initiate and monitor hemodialysis treatment (same patient care ratio as RN)

**How did the SRDP move  
toward using  
the Skill Mix Model  
of care delivery????**





# One Step at a time.....



# Stage I

- A 6 months contracted coordinator was hired for the RN/RPN skill mix project
- Rationale of having the project coordinator
  - a new, and important initiative in the hemodialysis program
  - supported by the senior team of TSH and SDRP
  - dedicated resource with full focus on the initiative

# Stage II

## Building the Team

- 1) Patient Care Director
- 2) Patient Care Manager
- 3) Project Coordinator
- 4) Professional Practice Leader
- 5) Union Representative
- 6) Human Resource
- 7) Nurse Educator



# Stage II – Con't

- Professional practice leader and Nurse Educator were the lead in developing the “Collaborative Model of Practice for HD RN’s and RPN’S
- Nurse educator with professional practice leader helped to develop the orientation package and involved in the evaluation planning stage
- A training manual was developed
- Documentation of the training process was designed for the SRDP RPN

# Stage II – Con't

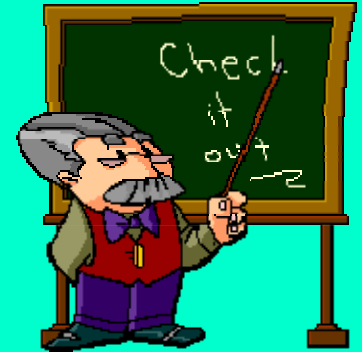
## RPN's in HD

- A written and practical test was required to be passed at the end of orientation
- Ongoing assessment of competency based on scope of practice as per CNO guideline
- Added nursing competency as per SRDP policy and procedure

# Next came the implementation phase

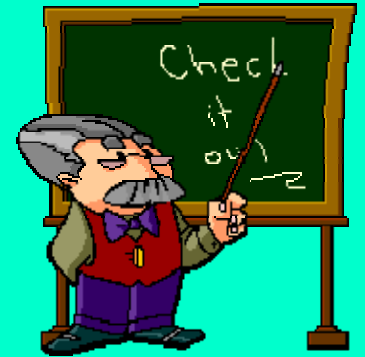


# Phase I



- Nov,06 – hired 1 FT and 2 PT RPN
- 1 PT RPN opted out after 2 wks of orientation
- Orientation consist:
  - 1) Three wks with Gambro technical training (equivalent to the RN)
  - 2) Three wks with project coordinator for clinical training component
  - 3) Six wks preceptorship with a RN at one of the satellite unit since there were more patients with predictable outcome at the chosen site

# Phase I – Con't



## Role of Preceptor:

- As a mentor
- Review and provide feedback to the RPN practice by utilizing the “self assessment tool”
- Provide unit specific orientation through a “scavenger hunt” check list
- Identify individual RPN concerns to project coordinator



**Concerns that needed to be addressed.....**

**.....Insecurities**



# Concerns

- 1) Job Security of RN
- 2) Unclear on the scope of practice of RPN
- 3) Job description clarification between RN and RPN
- 4) RNs query “no predictable outcome” hemodialysis patients in the nursing unit



# Concern 1

## Job security:

- No displacement of any RN will occur since the unit is short staffed and has relied on the commitment of part time and casual staff
- A new satellite with 12 stations is being built which will need more staff in the near future

# Concern 2

Unclear on the scope of practice of RPN:

- The most current Scope of Practice of RPN as per CNO was shared in the staff meeting
- Indicate to RN that the RPN in HD is an added nursing competency as per SDRP policy and procedure

Note; RN's role in the HD is also an added competency

# Concern 3

Job description clarification RN and RPN:

- A working group was established with two RN volunteers to re-evaluate the existing RPN scope of practice in HD
- Provide feedback to the existing RPN training manual

# Concern 4

## RNs query “no predictable outcome” HD pt:

- Patients were reviewed over 6 weeks duration at two different periods
  - Oct 2006:110 patients
  - Feb 2007 :105 patients
- Data was retrieved and analyzed with a dialysis data management computer software
- Two variables were chosen as indicators
  - frequency of systolic blood pressure <90mmHg during treatment
  - vascular access occurrence of an arterial pressure < -250mmHg and/or venous pressure >250mmHg

# Concern 4 – Con't

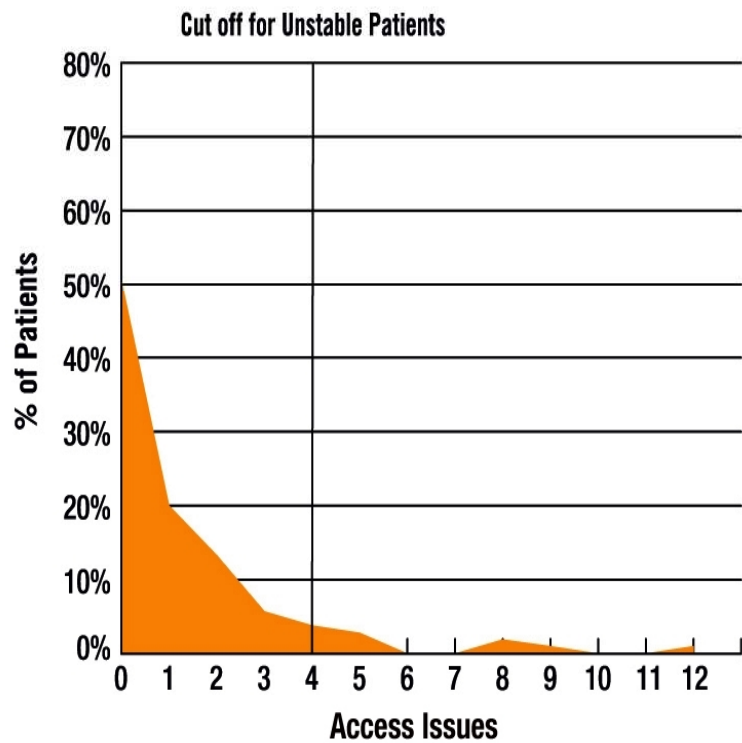
Result:

	Period 1	Period 2
No Issue	80	84
BP Issue	14	15
Access Issue	8	3
BP & Access	3	3
Exclude Patient	5	0

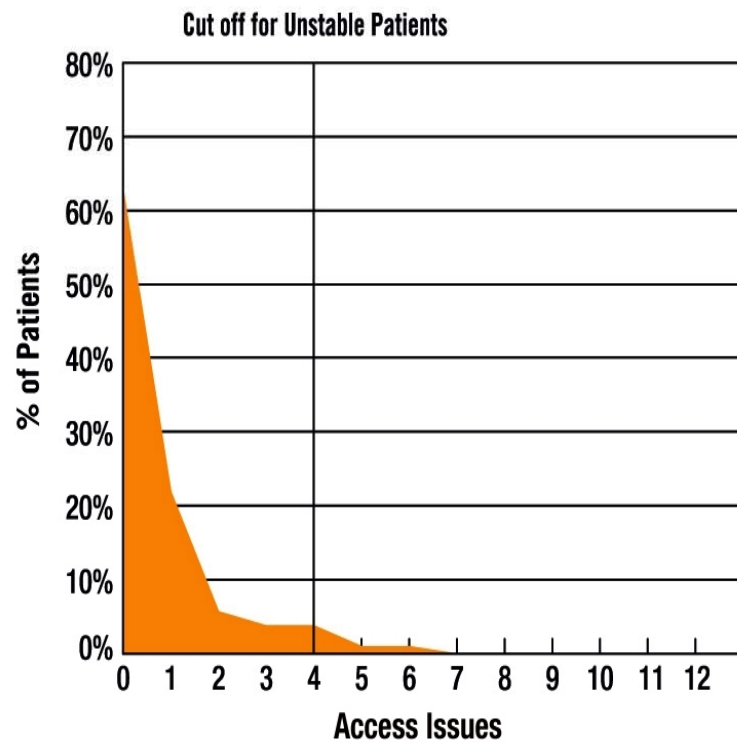
# Concern 4 – Con't

Number of Patients with Access Issues

Oct–Nov, 06



Feb–Mar, 07

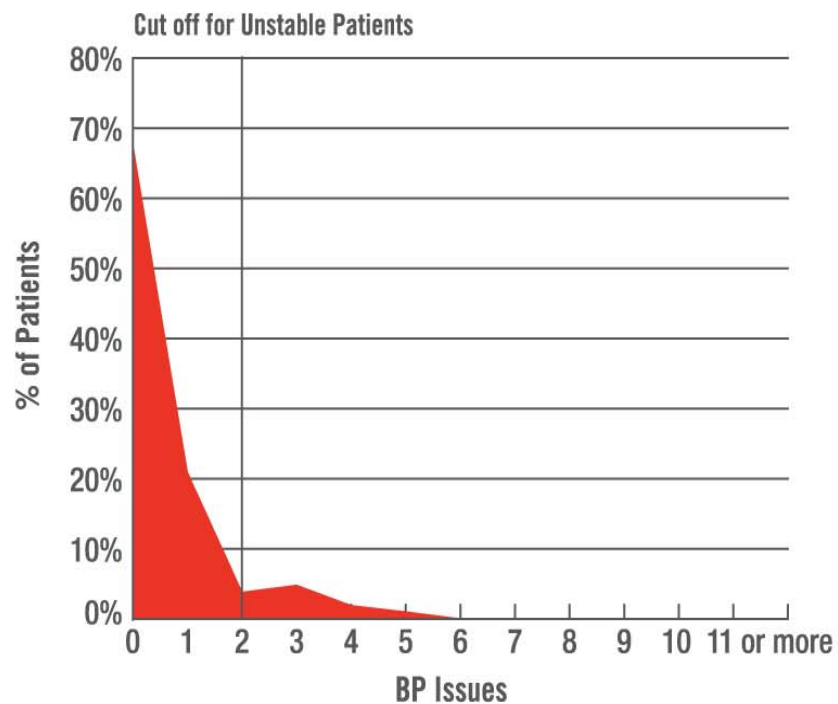




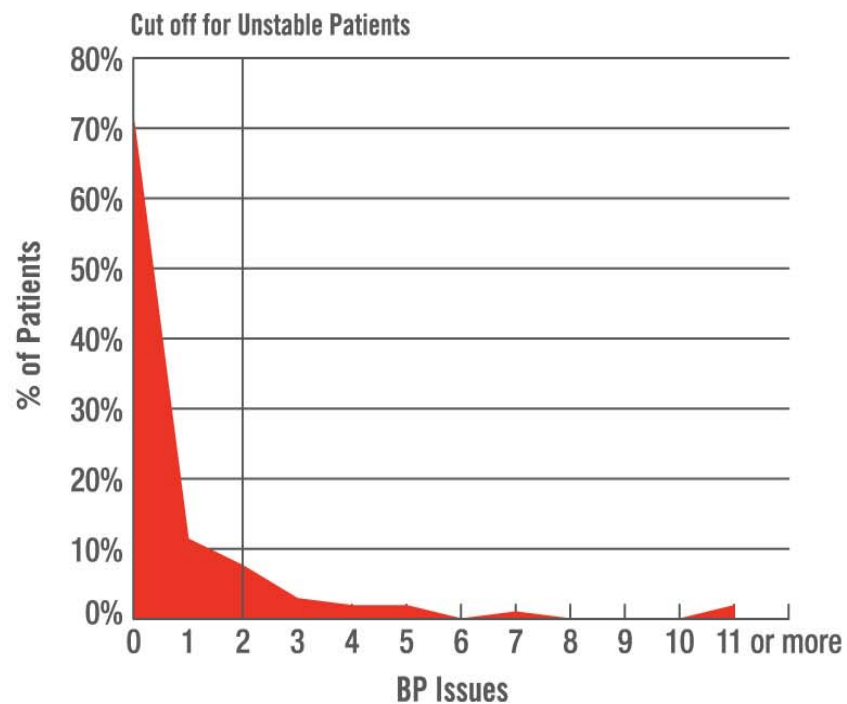
# Concern 4 – Con't

Number of Patients with BP Issues

Oct–Nov, 06



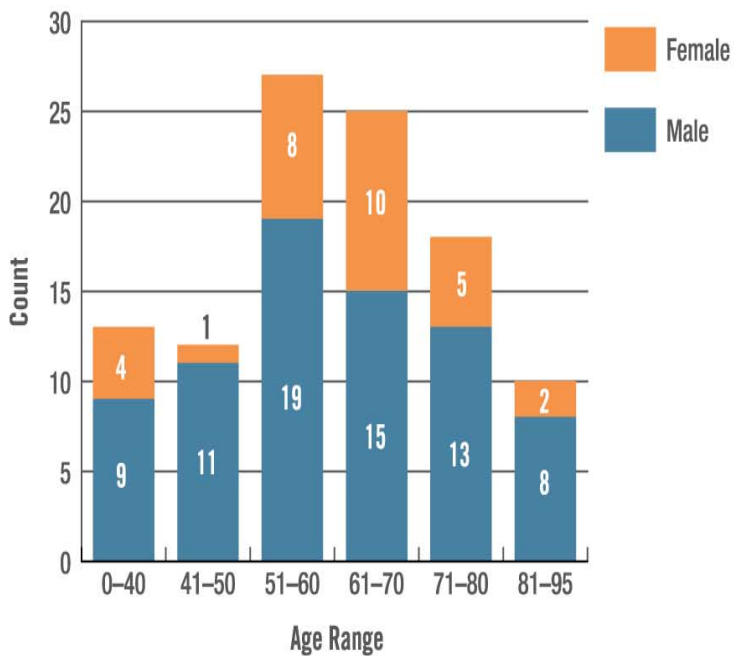
Feb–Mar, 07



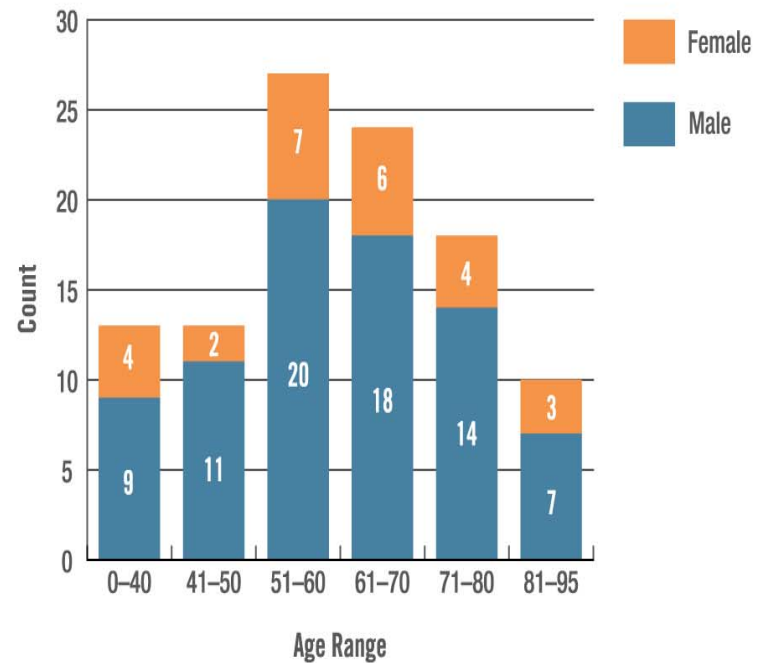
# Concern 4 – Con't

Age/Gender Breakdown

Oct–Nov, 06



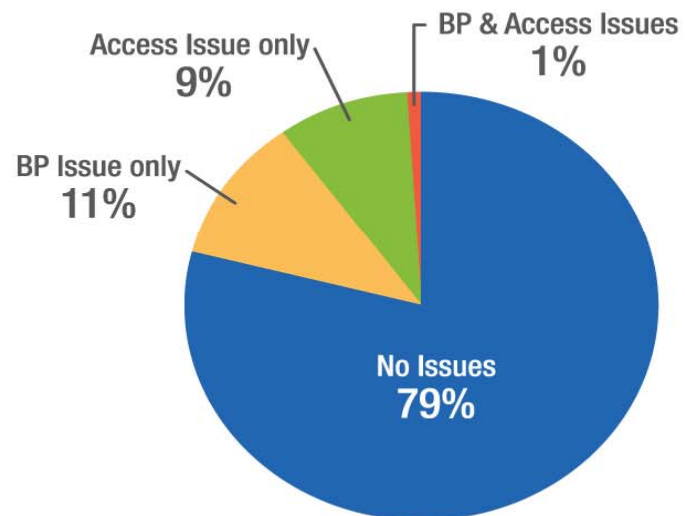
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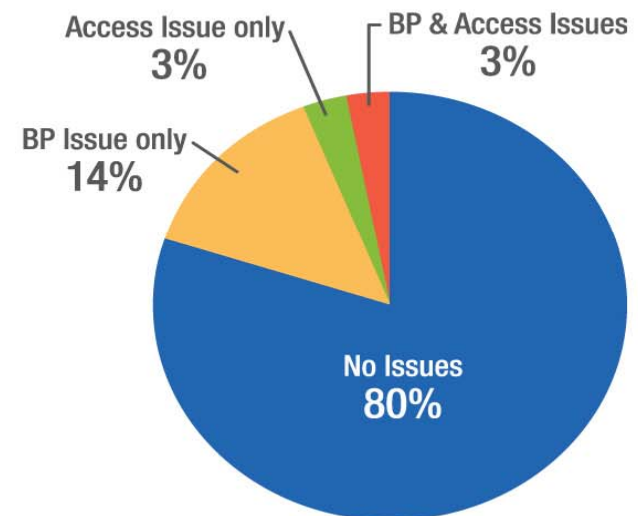
# Concern 4 – Con't

Percent of Patients with Issues

Oct–Nov, 06



Feb–Mar, 07



BP Issue is if patient has 2 or more BP measure below 90 during the data collection

Access Issue if patient had 4 or more measure venous pressure over 250 mmhg and/or arterial pressure over -250mmhg

# Concern 4 – Con't

- Data analysis
  - Period 1: 93 patients with stable BP and 94 patients had optimal vascular access that were appropriate for RPN care candidates
  - Period 2: 87 patients with stable BP and 99 patients had optimal vascular access that were appropriate for RPN
  - Different in sample size from period one to period two due to patient movement i.e. transplant
  - 5 patients were exempt from period 1 since they have new AVF creation less than 6 weeks

# Refinement #1 of orientation program

## RPN suitable patient

- Any new AVF/AVG need to be problem free cannulation for 6 weeks by RN prior to assigning to RPN
- Buttonhole establishment for any AVF will be done by RN only
- Buttonhole cannulation with blunt needle need to be certified by program educator

# Refinement #2 of orientation program

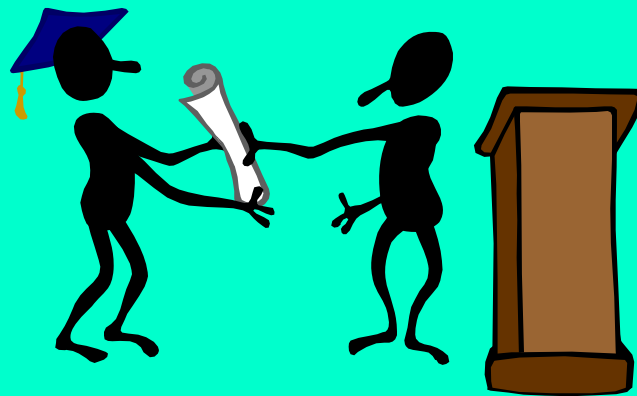
- RPN's will be scheduled for both main and satellite unit to become familiar in different acuity setting
- The RPN patient selection criteria will be the same at both settings
- The criteria was shared with the patient care coordinator and charged nurse whose primary responsibility is patient assignment

# Phase II

- Feb 2007 : 4 PT RPNs started orientation
- Temporary Project coordinator contract ends
- PCD, patient care coordinator and educator work collaboratively to continue the process of RPN implementation
- 4 RPNs have preceptorship at both main and satellite unit with RNs
- Feedback was reviewed frequently with RN preceptors
- The program educator will approve the final competency evaluation prior to the end of the preceptorship period

# Outcome

- All the RPNs from phase I and II are currently function independently at both main and satellite units
- Presently have the same patient ratio as RN's





# Moving Forward



- SRDP leadership team will be part of the on-going evaluation of existing and new RPNs
- Frequent staff meetings with RNs and RPNs in the early phase of implementation to address and resolve the concerns early
- Continue to have the new RPNs move from the main unit and the satellite units

# Moving Forward – Con't



- Orientation period to be adjusted to 8 weeks compared to 6 weeks RN orientation
- No academic institution offers post graduated nephrology programs for RPNs. SRDP will offer 2 weeks for additional clinical/theory support
- Obtain support from the union to extend the probation period to 12 weeks due to training requirement

# Commitment

## The SRDP:

- Is committed to providing safe, compassionate care
- supports the role of the RN and RPN to maximize their scope of practice
- will contribute to the RN/RPN 's professional growth



# Remember this.....

“ When the young don't seek and the mature don't offer, both are deprived”

Thelma Schorr



# Questions/Comments

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**Thank You**