

BCKD₁₉

BC KIDNEY DAYS

Day by Day: Teaching and
Learning for a Home
Dialysis Program

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Vancouver BC

Objectives

- To review the International Society of Peritoneal Dialysis (ISPD) Syllabus of teaching and learning for a home dialysis program
- How to assist patients to become experts in their own home dialysis care

What Matters Most in Home Dialysis Training



Modality Choice is the Beginning of the Education Plan



Potential Benefits of Home Therapy

Greater independence

Flexible schedule

More energy

Less time at hospital

More liberal diet

Greater availability to travel



Possible Obstacles of Home Therapy

- Chronic illness
- Anxiety / cognitive barriers
- Sensory deficits
- Low literacy
- Glasses required/hearing aide
- Complexity of learning
- Personal characteristics of learner
- Age of learner
- Language barriers
- Learning Style

ISPD Guidelines: Principles of Training

Who is the learner?

Who should be a PD trainer?

What should be taught?

Where should the training occur?

What should be the duration of training?

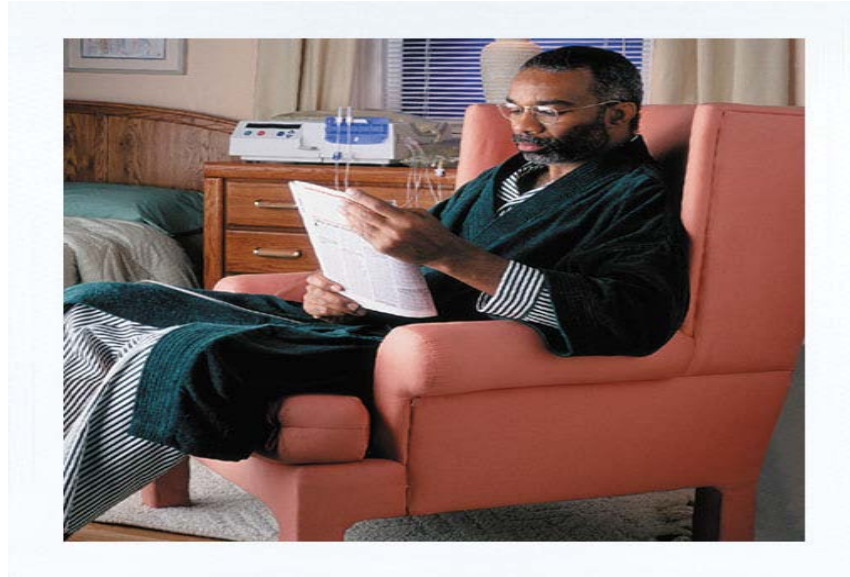
How should the patient be taught?

Who is the Learner?

- Patient
- Patient with Partner/Family
- Family
- Caregiver
- Paid Helper
- Nursing Home Staff

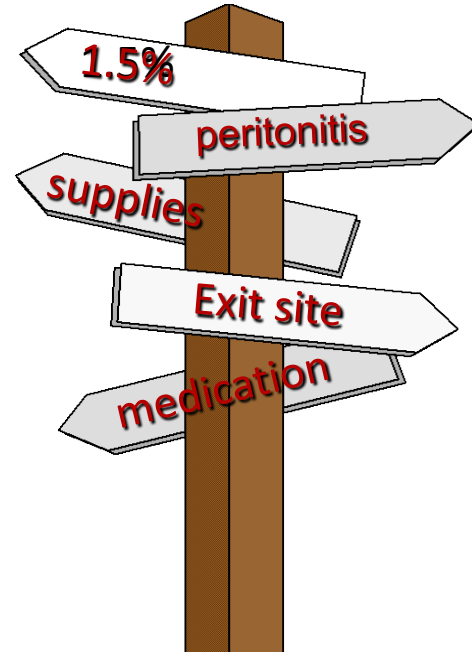
Do you know this learner?

- Silent
- Aggressive
- Negativist
- Frightened
- Indecisive
- Complainer
- Agreeable
- Know-it All



Renal Adult Characteristics

- Depressed mentation
- Require repetition
- Short attention span
10 -15 minutes
- Altered perception
- Decreased level of concentration



Evaluation before training

- Emotional state
- Muscle strength
 - Connections
 - Clamps
 - Lifting bags
 - Opening boxes
 - Literacy
- Visual
 - Acuity/depth perception
 - Reading instructions
 - Connections
 - Glasses required/Hearing aide
- Language issues
- Allergies: Providine, soaps, exit site prophylaxis



Literacy means the person is able to learn new skills, think critically, and problem solve; or the ability to read and interpret numbers

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Who is the learner?

Who should be a Peritoneal Dialysis (PD) trainer?

What should be taught?

Where should the training occur?

What should be the duration of training?

How should the patient be taught?

Who should be PD Trainer?

Experienced PD nurse – had a mentor for at least 6 weeks

Ratio of patient to nurse is 1:1- ideally

Good communication skills, be innovative and consistent, and firmly believe in patient self-care.

Is Nursing Experience Beneficial?

Baseline Characteristics of the Study Patients ^a				
Variable	All patients	Patients by experience of the primary nurse Least (<10)	Moderate (10 to <15)	Advanced (≥15)
Demographics				
Patients (<i>n</i>)	305	114	100	91
Age (years)	59.42±14.17	59.47±14.28	59.76±14.00	58.99±14.38
Sex [men (%)]	42.3	38.6	46.0	42.9
Literacy [>high school (%)]	27.2	27.2	26.0	28.6
Annual income [≥20000 yuan (%)]	32.1	28.1	31.0	38.5
Assisted PD (%) ^b	37.7	45.1	40.6	26.4
Clinical variables				
Body mass index (kg/m ²)	23.41±3.78	23.01±4.21	23.62±3.45	23.66±3.54
Diabetes mellitus (%)	40.3	43.9	42.0	34.1
Charlson comorbidity index	5.84±3.87	6.34±4.00	5.61±3.46	5.44±4.08
Laboratory variables at baseline				
Serum albumin (g/L)	35.60±4.15	35.14±3.82	35.84±4.30	35.91±4.38
Serum hemoglobin (g/L)	102.57±16.44	103.17±15.77	103.44±16.97	100.81±16.73
Residual renal function (mL/min)	4.00±4.49	3.71±4.10	4.39±3.48	3.93±5.81
Follow-up and outcome				
Total follow-up (months)				
Mean	45	48	45	41
Range	(26–59)	(28–61)	(27–59)	(24–58)
Peritonitis (patient–months/episode)	55.66	45.8	52.81	70.29
Death (%)	41.6	42.9	40	41.8
Transfer to hemodialysis (%)	9.18	8.77	13	5.49
Transplantation (%)	9.83	6.14	10	14.3
Others (%)	2.62	2.63	2	3.29

Can we apply this theory to home Hemodialysis training?

Experienced nurse – had a mentor for at least 6 weeks

Ratio of patient to nurse is 1:1- ideally

Good communication skills, be innovative and consistent, and firmly believe in patient self-care.

Are All Nurses Teachers?

The complexity of the task of teaching is often overlooked

Many assume the skills will develop automatically

Even with the best intentions, the results may be haphazard, inefficient and ineffective

Teaching Home Dialysis Requires a Team

- Nurse
- Pharmacist
- Dietitian
- Social Worker
- Nephrologist
- Physio



Nursing / Team Roles

- Education/Knowledge
- Setting Goals
- Developing teaching plans/Practice policies
- Evaluate through CQI (Continuous Quality Improvement)

Team Work



Before Teaching Home Dialysis



After you have become experienced ,
be a mentor for other nurses

Learn the principles of adult
education

Develop training skills

Find a mentor

Never be complacent about
acquiring new skills and new
methods of teaching

We are the Important Link



ISPD Guidelines: Principles of Training

Who is the learner?

Who should be a PD trainer?

What should be taught?

Where should the training occur?

What should be the duration of training?

How should the patient be taught?

What should be taught?

- Overview of PD
- Aseptic technique and hand hygiene
- Steps in exchange procedures
- Emergency measures for contamination
- Exit-site care
- Complications / Troubleshooting
- Clinic visits/home visits
- Holiday protocols/employment/hobbies/sports

MUST KNOW
NICE TO KNOW

Develop a Teaching Plan

- A Course Outline;
- Written daily teaching guide

Teaching Aids

Handouts

Blackboard, felt board or paperboard

Video or audio tapes, internet access

Equipment for demonstration



Example Teaching Plan

Dialysis Teaching Center
PERITONEAL DIALYSIS TEACHING GUIDE

Patient Name _____ Helper _____
 Date Started _____ Date Started _____
 Date Completed Training _____ Training Nurse _____

Topic	Patient	Helper	Comments
A. Normal and abnormal kidney function as outlined in CAPD Teaching Program			
B. Vital signs and their Importance			
C. Patient and /or helper able to do vital signs			
D. Basics on how peritoneal dialysis works and what CAPD and CCPD means			
E. Aseptic technique taught and demonstrated by patient and / or helper			
F. Twin bag exchange procedure done by patient and / or helper			
G. Exit site care done by patient and/or helper and problem management of exit site discussed			
H. Patient and /or helper understand: Ideal weight Fluid weight control How to choose dialaneal for fluid control - 0.5%,1.5%,2.5%,4.25% Relationship between weight BP, salt and fluid intake How to recognize edema and fluid overload How to recognize symptoms of dehydration			
I. Patient and / or helper know why nutrineal extraneal and physioneal (when applicable) is used			
J. Ongoing diet review to reinforce instruction from dietitian			
K. Ongoing medication review to reinforce instruction from pharmacist.			
L. Patient and / or helper able to add medication to dialaneal.			
M. Patient and / or helper know how to keep log sheets			

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Where - Home dialysis training

- clinic
- hospital
- home
- alternate site (nursing homes, special care homes, visiting nurses and care personnel)

Training from ISPD Survey

	USA	Canada	South America	Hong Kong	The Netherlands	Total
When training occurs						
Before catheter insertion	1%	2%	38%	33%	0%	9%
After catheter insertion	85%	89%	36%	33%	80%	74%
Before and after catheter insertion	14%	9%	26%	33%	20%	17%
Where training occurs						
Clinic only	83%	26%	85%	16%	13%	54%
Hospital only	2%	37%	5%	79%	13%	30%
Home only	2%	0	2%	2%	0%	1%
Clinic and/or hospital, home	13%	37%	8%	3%	73%	15%
Training time per patient						
Hours per day (range)	4.5 (1.5–8)	5 (2–12)	2 (1–10)	8 (2.5–12)	5 (1–8)	5 (1–12)
Days of training (range)	6 (3.5–15)	5 (2–12)	10 (5–90)	6 (4–8.4)	5 (3–10)	6 (2–90)
Total hours of training (range)	27 (8–84)	25 (6–70)	20 (7–90)	44 (10–96)	25 (8–60)	30 (6–96)
Peritonitis per year	0.44	0.39	0.50	0.43	0.34	0.42

Training Room: no other activities in the room

A room with a door for privacy and quiet

Chair for patient rest



Work surface and sink for hand washing



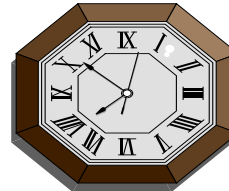
IV pole



Able to wash up spills



scale



clock



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Teaching in PD

There is no data to support the ideal length and characteristics of training that would ensure best PD outcome.

ISPD Recommendation -5 days- 3 hours (adjusted to the learner)

Additional time for Dietitian , Pharmacist, Social Worker, Nephrologist

Nursing Liaison Committee of ISPD

- Survey- 14 centers from 10 countries
- Australia, Brazil, Canada, China, Guatemala, Japan, Mexico, New Zealand, United Kingdom, and the United States.

Consensus on Training

5 days

3 hours day

Adult learning

One to one

Nurse

Training time for PD and Home Hemodialysis(HH)?

- There are no randomized trials to compare the length of training with outcomes
- Training should continue **until** the patient can
 - safely perform all required procedures
 - recognize a contamination and an infection with appropriate responses

ISPD Guidelines: Principles of Training

Who is the learner?

Who should be a PD trainer?

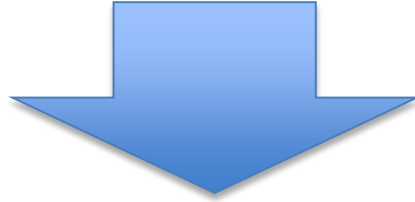
What should be taught?

Where should the training occur?

What should be the duration of training?

How should the patient be taught?

Adult Education

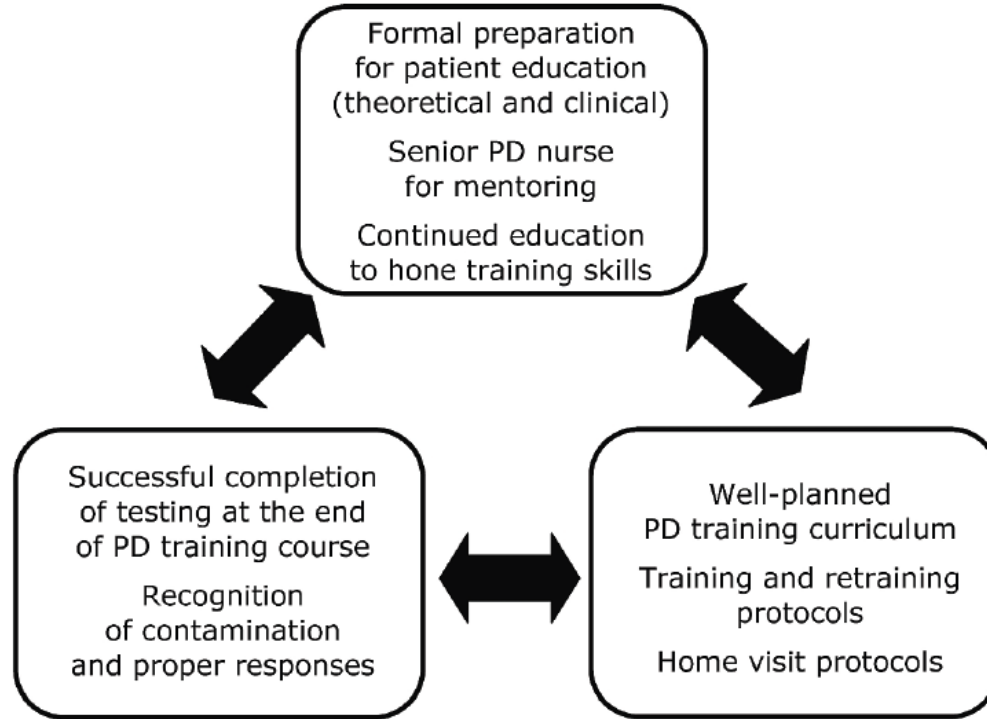


Prepare the learner with what they are going
to learn,
What the trainer will be doing
What the learner will do
How both of you will know that learning has
occurred.

ISPD Recommended Practical /Communication Skills

- Demonstrate
- Patient describes in his own words
- Patient practices with supervision
- Positive feedback
- Positive correction
- Practices without supervision

Team Approach to Training



Training

Use aprons or mannequins to practice procedure

Limit sentences to one main idea and support the information

Use short words and sentences
Use active voice "You"

Allow time to read and absorb information

- Consider interactive components such as group work and peer support;

Know when a patient cannot manage self-care, so other support/assistance can be explored

Training

Use multiple teaching methods and tools requiring fewer literacy skills

Teach one step at a time
Give enough time to practice

Use repetition to reinforce information
Repeat information with different wording

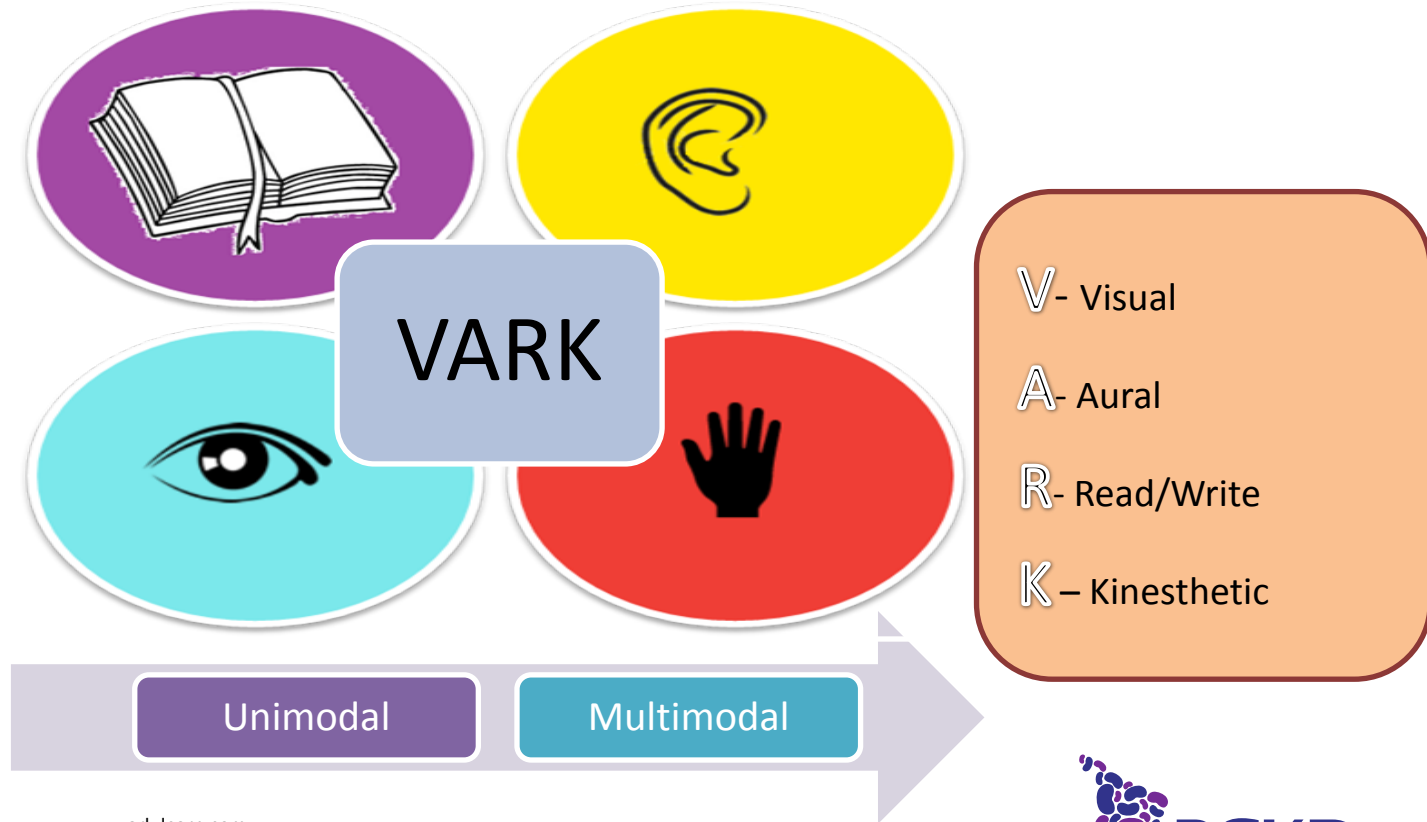
Focus on patients strengths and demonstrate confidence in his ability to learn

Make points of information as vivid and explicit as possible

Simple procedures, oral instruction contains cues such as tone of voice
Avoid medical jargon

Small amount of information agreed with the patient

Vark Style



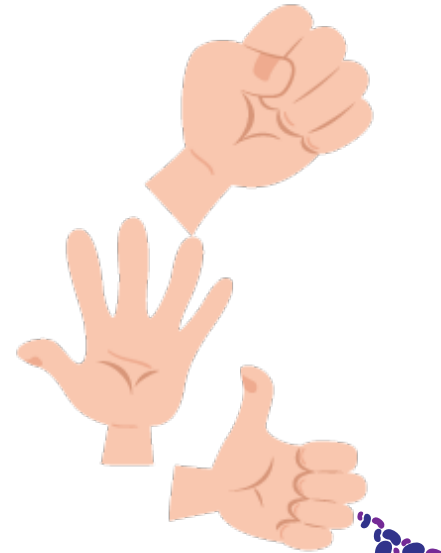
www.vark-learn.com

Visual

Tends to speak fast and interrupt the speaker

VISUAL

Font size 14



Aural

Speak slowly and be a good listener

AURAL



Motor

Use hands-on approach.

Videos and pictures showing real things

MOTOR



Should we apply these Educational Practices from the Peritoneal Dialysis (PD) teaching program to the Home Hemodialysis (HH) teaching Program ?

Nurse Trainers Expectations

- Teacher
- Communicator
- Telephone operator
- Writer
- Cultural Diplomat
- Counselor
- Night owl
- Critical analyst
- Technician
- Law enforcer
- Spy
- Researcher
- Reader
- Sociologist
- Document designer
- Juggler

Reader

- Keeps up with current knowledge in this very complex field
- Attends education sessions when possible
- Shares current information read with co-workers



A Night Owl

- Peritoneal Dialysis/Home Hemodialysis Nurses on call 24 hrs /day
- Able to break sleep patterns and respond professionally to all calls



In one ear and out the other

- 50-80% of medical information is forgotten instantly
- 50% of retained information is recalled incorrectly
- 14-21% never fill original prescriptions
- 30 – 50% disregard instructions



Evaluating your training:

- Track patient outcomes
 - Infection rates (peritonitis, catheter infections)
 - Hospitalization rates
 - Deaths
 - Transfers to alternate modality
- Periodic reassessments of patient technique and problem solving

Retraining when to be done

After peritonitis

Catheter infection

Prolonged hospitalization

Any other interruption in Treatment

We need to talk more often to
colleges across the country



Working together



Summary

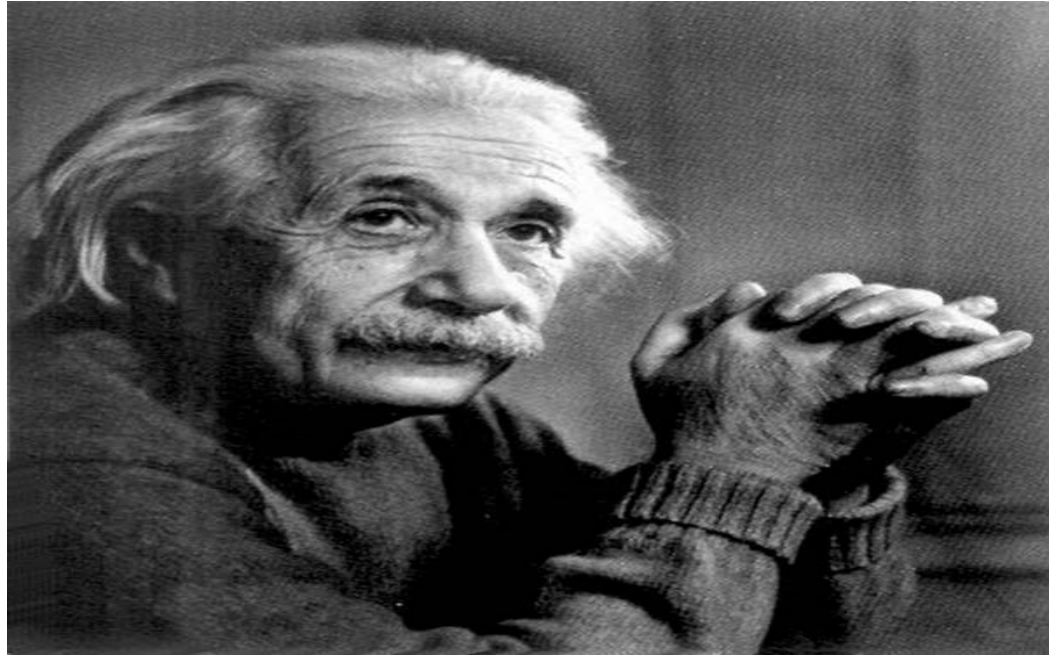
- Nurses can provide outstanding training for their patients if they apply the principles of adult learning.
- We need to establish standards for Peritoneal Dialysis training.(Home Hemodialysis)
- We need to evaluate the outcomes of various training methods to determine the best approaches for patients.

Conclusion

What Matters Most in Home Dialysis Training

- Patient/Family safely perform all required procedures
- Patient/Family recognize complications and understands how to relay the information to the home training staff

Doing the same thing over and over again
and expecting different results



Albert Einstein