

# URGENT START PD

## WHERE WE STAND IN 2017

---

Leslie Wong, MD, MBA, FASN

Annual Dialysis Conference 2017

Long Beach, California

# Audience response

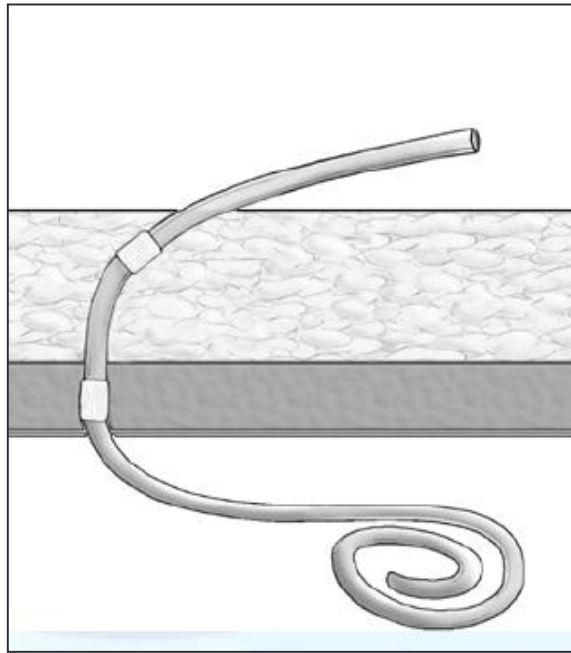
- **Why are you here today?**
- **How many do urgent PD starts?**
  - **Inpatient?**
  - **Outpatient?**
  - **Both?**

# Panelists

- Arsh Jain, MD
- Cheryl Groenhoff, RN, MSN, MBA, CNN
- Arshia Ghaffari, DO, MA , MBA

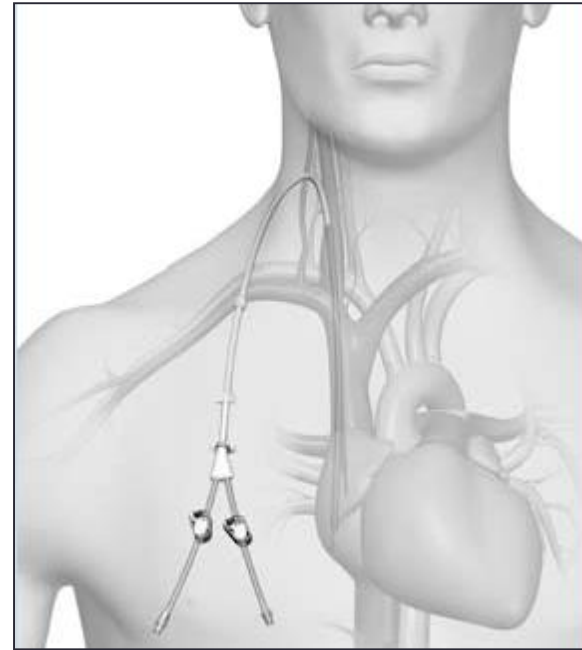
# Basic premise of Urgent start PD

Crabree J. Kidney Int 2006

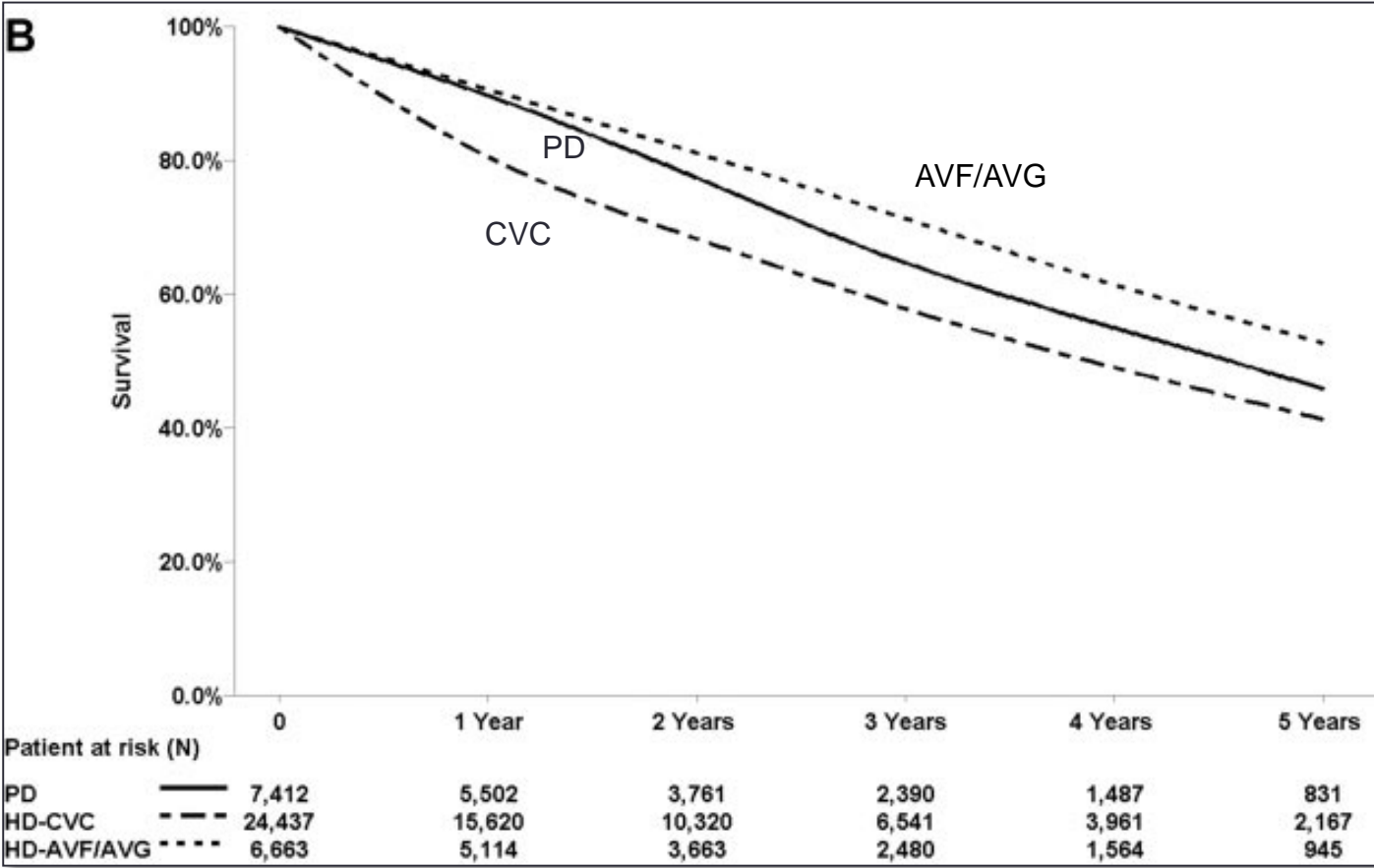


This

www.aakp.org



Not That



CVCs are BAD



PD Clinic	Hospital
Home focus	
Grow PD	
PD nurse	
Nephrologist	
PD protocols	
IP meds	
PD supplies	

Patient with CKD stage 5  
(Without a plan for dialysis modality)

# Urgent start algorithm

**Table 3. Infectious and Mechanical Complications**

Complications	Urgent-Start PD (n = 18)	Non-Urgent-Start PD (n = 9)
No. of peritonitis episodes	1	1
Peritonitis rate (/patient-month)	1/110	1/42
No. of exit-site infections	2	1
Exit-site infection (/patient-month)	1/55	1/42
Minor leaks	4 (22.2)	1 (11.1)
Major leaks	2 (11.1)	0 (0)
Poor initial drain	0 (0)	1 (11.1)
Primary nonfunction	2 (11.2)	2 (22.2)
Hematoma	1 (5.6)	0 (0)
Bowel perforation	0 (0)	0 (0)

Urgent start is safe & feasible



**AJKD**

Original Investigation

## Urgent-Start Peritoneal Dialysis: A Quality Improvement Report

*Arshia Ghaffari, DO, MA, MBA*

NDT Advance Access published December 17, 2013

Nephrol Dial Transplant (2013) 0: 1–6  
doi:10.1093/ndt/gft487

**ndt**  
Nephrology Dialysis Transplantation

*Full Review*

Can peritoneal dialysis be applied for unplanned initiation of chronic dialysis?

Per Ivarsen  
and Johan V. Povlsen

Department of Renal Medicine, Aarhus University Hospital and  
Department of Clinical Medicine, Faculty of Health, Aarhus  
University, Aarhus, Denmark

*Seminars in Dialysis*

**DIALYSIS THERAPIES AND MORE:  
THINGS THAT YOU SHOULD KNOW**

Urgent-Start Peritoneal Dialysis: What are the Problems and Their Solutions?

Rex L. Mahnensmith

Department of Internal Medicine, Section of Nephrology, Yale University School of Medicine, New Haven, Connecticut

**AJKD**

Perspective

**Urgent-Start Peritoneal Dialysis: A Chance for  
a New Beginning**

*Rohini Arramreddy, MD,<sup>1,2</sup> Sijie Zheng, MD,<sup>3</sup> Anjali B. Saxena, MD,<sup>1,4</sup>  
Scott E. Liebman, MD,<sup>5</sup> and Leslie Wong, MD<sup>1,2</sup>*

**Table 2. Urgent-Start PD Protocols**

Reference	PD Initiated		Operator	Prescription		
	Inpatient	Outpatient		Initial Dwell Volume (mL)	Hours	Frequency
Casaretto et al <sup>11</sup>	x	x	Surgeon	1,000	6	3×/wk
Ghaffari <sup>13</sup>		x	Interventional radiologist	500-1,250	5-8	3×/wk
Lobbedez et al <sup>12</sup>	x		Surgeon	1,200-1,500	12	Daily
Povlsen & Ivarsen <sup>21</sup>	x		Surgeon	1,200-1,500	12	Daily
Satellite Healthcare–Wellbound <sup>a</sup>		x	Variable	1,000	5-8	5×/wk

*Note:* All prescriptions recommend the use of a cycler.

Abbreviation: PD, peritoneal dialysis.

<sup>a</sup>Unpublished data from urgent-start PD pilots.

Arramreddy R. AJKD 2014

## Comparison of Urgent Start PD practices

## **SUCCESS OF URGENT-START PERITONEAL DIALYSIS IN A LARGE CANADIAN RENAL PROGRAM**

---

Ali M.A. Alkathheeri,<sup>1,3</sup> Peter G. Blake,<sup>1</sup> Daryl Gray,<sup>2</sup> and Arsh K. Jain<sup>1</sup>

- Single-center in Ontario
- Prospective observational design
- 30 patients started PD <2 weeks after catheter placement
- 4/5 outpatient, 1/5 inpatient
- Followed for up to 3 years

# Excellent outcomes

- No peritonitis or exit site infections in first month
- 6 patients had catheter migration treated with repositioning
- 13% were transplanted

Intervention and patient number	Leak <sup>a</sup>	Peritonitis <sup>b</sup>	Exit-site infection <sup>b</sup>	Dysfunction <sup>c</sup>	Survival <sup>d</sup>
Urgent-start PD ( <i>n</i> =30)	3 (10%)	1:319 <sup>h</sup>	1:159 <sup>h</sup>	6 (20%)	Patient survival: 100% <sup>f</sup> Technique survival: 93.3% <sup>f</sup>



Jobs ▾

Immigration ▾

[Home](#) → [Immigration and citizenship](#)

## Become a Canadian citizen

Determine your eligibility

Apply

Submit fingerprints

Apply urgently

Start PD urgently

# Urgent Peritoneal Dialysis Starts for ESRD: Initial Multicenter Experiences in the United States

AJKD

---

*Leslie P. Wong, MD, MBA,<sup>1</sup> Nien-Chen Li, MPH<sup>2</sup>  
Sheru Kansal, MD,<sup>1</sup> Eduardo Lacson Jr, MD, MPH<sup>3</sup>  
Frank Maddux, MD,<sup>2</sup> Joseph Kessler, MSN, RN<sup>2</sup>  
Stephanie Curd, RN,<sup>2</sup> Keith Lester,<sup>2</sup> Melissa Herman, BSN, RN<sup>2</sup>  
Joseph Pulliam, MD<sup>2</sup>*

<sup>1</sup>Cleveland Clinic, Cleveland, Ohio

<sup>2</sup>Fresenius Medical Care North America, Waltham, Massachusetts

<sup>3</sup>Tufts University School of Medicine, Boston, Massachusetts

**Table b. Distribution of subjects at participating PD units**

Center ID	# of Subjects	PD Census <sup>1</sup>
1	1	15
2	2	7
3	12	32
4	1	15
5	1	8
6	10	69
7	2	7
8	1	8
9	2	17
10	2	19
11	1	2
12	2	10
13	9	130
14	3	24
15	1	8
16	1	22
17	7	23
18	9	44
19	1	1
20	4	18
21	1	9
22	8	58

<sup>1</sup>Reflects point prevalence as of January 1, 2015.

**Fresenius urgent start pilot**

**Table 2.** Clinical Summary

Clinical Summary	Emergent (n = 21)	Non-Emergent (n = 60)	Total (N = 81)	<i>P</i> <sup>a</sup>
Type of PD catheter placement				
Laparoscopy	17 (81%)	52 (87%)	69 (85%)	0.5 <sup>b</sup>
Open laparotomy	1 (5%)	0 (0%)	1 (1%)	
Percutaneous	3 (14%)	3 (5%)	6 (7%)	
Missing	0 (0%)	5 (8%)	5 (6%)	
Mechanical complications	11 (52%)	20 (33%)	31 (38%)	0.1 <sup>c</sup>
Hematoma	1 (5%)	1 (2%)	2 (3%)	
Leak	2 (10%)	2 (3%)	4 (5%)	
Drain problem	2 (10%)	7 (12%)	9 (11%)	
Omental wrapping	2 (10%)	1 (2%)	3 (4%)	
Other	4 (19%)	9 (15%)	13 (16%)	
Duration, d				
On PD training	9 [4]; n = 21	9 [5]; n = 58	9 [5]; n = 79	0.6
On PD	256 [347]; n = 21	268 [127]; n = 60	268 [159]; n = 81	0.07
From PD start to first hospitalization	78 [177]; n = 13	67 [122]; n = 26	78 [133]; n = 39	0.5
From PD start to first peritonitis	26 [155]; n = 5	34 [152]; n = 8	33 [157]; n = 13	0.9

No differences between emergent (<48h) and non-emergent (<2 weeks)



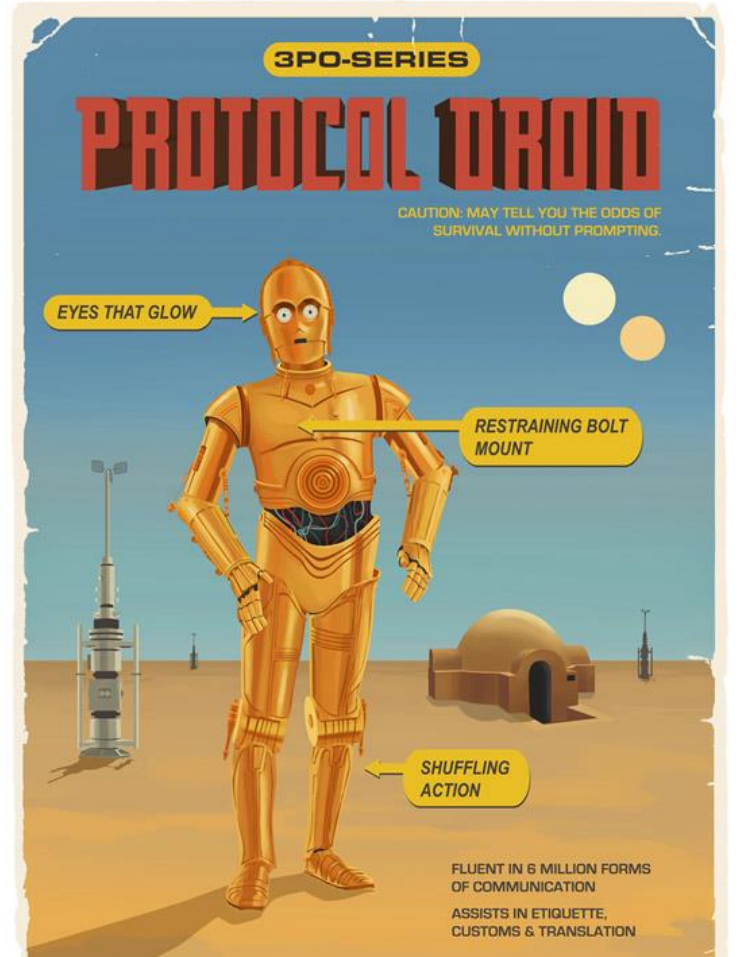


What are the main goals of urgent start PD?

Who are appropriate candidates  
for urgent start PD?

What resources are required to have an urgent-start PD program?

Who places your PD catheters?



# Clinical Protocols

How is urgent-start PD  
prescribed?

How do you define adequacy  
and monitor therapy?



When do you transition an urgent start patient to home PD?

# Logistics & Barriers



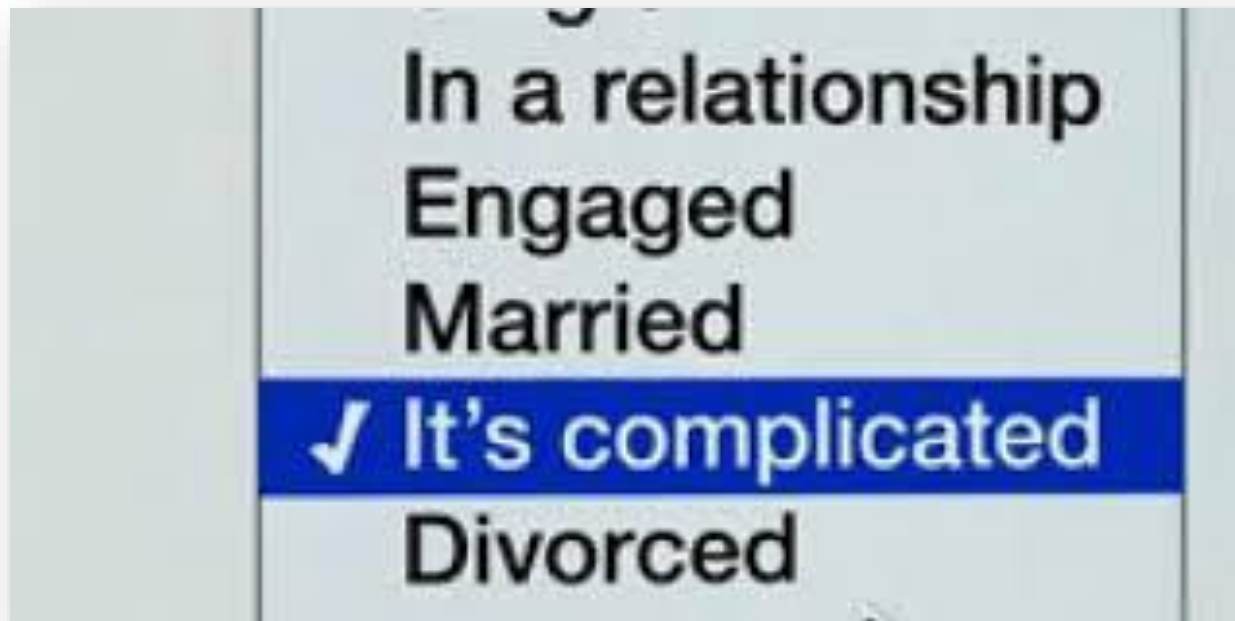
Who is your urgent-start team?

What happens differently if the patient is started in the hospital versus clinic?

How are nurses trained to manage  
an urgent start PD patient?

Are there any special supply issues that arise with urgent start?

# Complications



With increasing number of patients starting urgently, do complications increase?



How are early complications managed in urgent-start patients?

# Common complications

- **Drain alarms with low volume PD**
- **Drain pain and bladder spasms**
- **Leaks and exit site care**
- **Constipation**



Key ingredients for a successful  
urgent-start PD program

Thank you!

