

Incident Management of Hemodialysis Patients: Managing the First 90 Days

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INTRODUCTION

The first days of dialysis are particularly challenging for patients, families and health care teams. New patients are often unaware of their clinically silent kidney disease until they are uremic and require emergent hospital care and acute hemodialysis.

IMPACT™ (Incident Management of Patients, Actions Centered on Treatment) is a program to reduce mortality in new patients during the first 3 months of dialysis, when these patients are most vulnerable. IMPACT was designed to standardize the onboarding process of incident patients from their 0 to 90-day period.

METHODOLOGY

- An observational (non-randomized), un-blinded study
- 606 incident patients evaluated over 12 months (Oct07 – Oct08) at 44 US DaVita® facilities as of July, 2008
- Study measures: 90-day mortality rate, % achieving fistula access, serum Albumin, % achieving Hb target levels, and dialysis adequacy



STUDY TOOLS

- (1) Structured New Patient Intake Process with a standardized admission order, referral fax, and an intake checklist
- (2) 90-day Patient Education Program with an education manual and tracking checklist
- (3) Tools for 90-Day Patient Management Pathway
- (4) Data Monitoring Reports

Table 1: Patient Characteristics

	NonIMPACT	IMPACT
	%	%
Mean Age ± SD	61.9 ± 15.2	60.6 ± 15.1
Gender: M/F	54.5/43.5	61.0/39.0
Race		
Caucasian	48.5	42.8
African American	30.1	34.7
Hispanic	14.0	13.8
Asian	3.5	5.5
Native Am./Other	3.9	3.2

Figure 1: 90-day Mortality

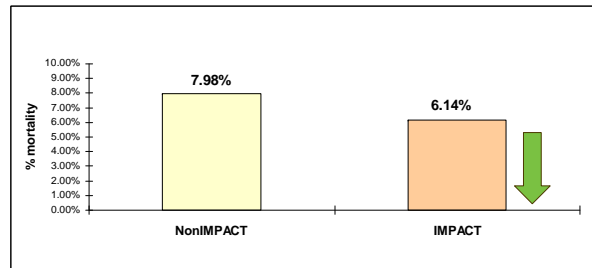


Table 2: Clinical Measures

Indicator	90-Day Value		p-value	Change
	NonIMPACT	IMPACT		
% of patients with fistula access	21.4	25.0	p≤0.05	↑
Albumin (mean g/dL)	3.56	3.60	p<0.05	↑
Anemia (% of patients reaching target of ≤11 Hb≥12)	23.4	20.6	p<0.10	↔
Kt/V (mean calculated level)	1.58	1.54	p≤0.05	↔

RESULTS

- There was a reduction in 90-day mortality almost 2 percentage points lower (6.14% vs. 7.98%; p<0.10) among IMPACT versus nonIMPACT patients
- Patients achieving fistula access during their first 90-days was 25% versus 21.4%, IMPACT and nonIMPACT, respectively (p≤0.05)
- IMPACT patients had a higher albumin level: 3.5 versus 3.6 g/dL (note that some IMPACT patients were on protein supplementation during this period)
- Only 20.6% of IMPACT patients achieved Hb targets (11≤Hb≥12) versus 23.4% for controls
- Mean calculated Kt/V was 1.54 for IMPACT patients versus 1.58 for nonIMPACT patients

KEY LEARNINGS

- ✓ IMPACT is a first step toward a comprehensive approach to reduce mortality in incident patients
- ✓ We believe this focus may help us to better manage CKD as a continuum of care
- ✓ Long-term mortality measures will help determine if this process really impacts patients in the intended way, resulting in longer lives and better outcomes

We thank the patients who participated in this study. We also thank DaVita Clinical Research® (DCR) for providing the clinical data and analysis for this research project. DCR is committed to advancing the knowledge and practice of kidney care.



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