

The Clinical and Economic Burden Of Coronary Restenosis in a Managed Care Population

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DISCLOSURES

Mary Ann Clark and Elise Pelletier are employees and shareholders of Boston Scientific Corporation.

Data were purchased for this study by Boston Scientific Corporation from Integrated HealthCare Information Services, Waltham, MA.

BACKGROUND

- Managed care organizations (MCOs) pay hospitals and physicians for a significant number of PCIs per year
- The economic burden to these health plans could play an important role in influencing hospital payments for drug-eluting stents
- This is the first study to examine the clinical and economic burden of restenosis in a contemporary managed care population

OBJECTIVES

- Estimate the clinical restenosis rate in a managed care population
- Measure and compare health resource use for PCI patients with and without repeat revascularizations
- Determine the economic burden of restenosis (added cost) per managed care PCI patient

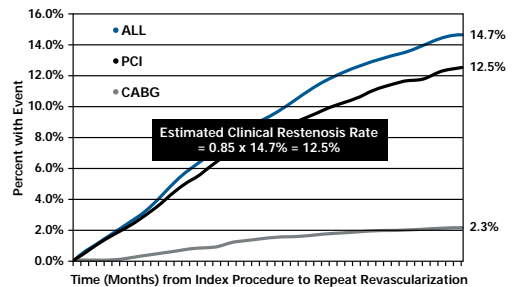
DATA

- Managed Care Claims Data: 01/1999 - 12/2001
- Geographic Representation: mostly North East and Mid-Atlantic
- Enrollment Information: 2.8 million lives
- Paid Claims:
 - inpatient and outpatient hospitalizations
 - physician encounters and ancillary services
 - pharmacy claims

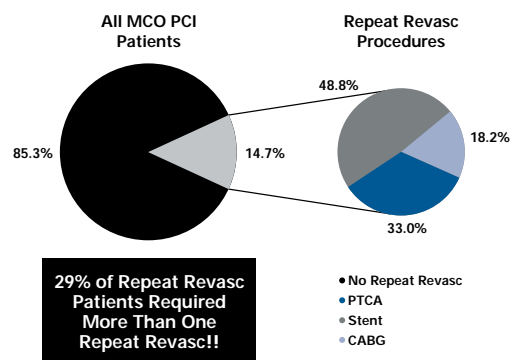
METHODS

- Design: retrospective cohort study
- Patient Selection:
 - continuously enrolled in health plan
 - PCI during 2000
 - no PCI or CABG 1 year prior to initial PCI
- Outcomes:
 - repeat revascularization (PCI or CABG) rate
 - estimated clinical restenosis rate
 - follow-up health resource use
 - follow-up medical care "costs"

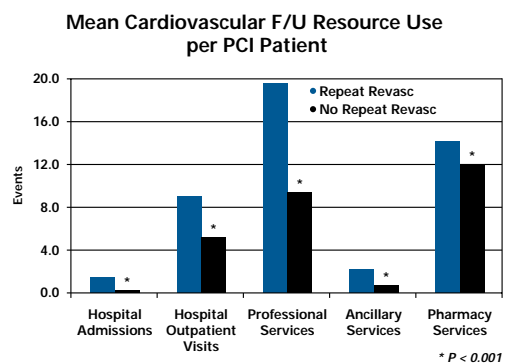
Repeat Revascularization >30 Days in Managed Care Patients



Repeat Revascularization Detail



All Types of Resource Use were Significantly Higher for Repeat Revascularization Patients



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DEFINITIONS/ANALYSIS

- Follow-up Period: 31 to 365 days post-index date
- Clinical Restenosis Rate: Repeat Revasc Rate x 0.85 (Kimmel 2002)
- Costs to Managed Care: MCO Payments
- Descriptive statistics; non-parametric analyses of medical costs

MCO PCI PATIENTS COMPARED WITH OTHER PCI POPULATIONS

	MCO 2000 (n=3,258)	Medicare (65+) 1998 (n=10,228)	NCDR 1998-2000 (n=100,292)
Age (mean)	61.3	73.5	64.0
Female (%)	24.0	43.2	34.0
Diabetes (%)	32.1	33.6	26.0
Renal failure	3.6%	5.6%	3.6%
Peripheral Vascular Disease (PVD)	17.5%	25.1%	12.1
MI principal DX (%)	22.1	29.4	N/A
Saphenous vein graft intervention (%)	1.8	4.9	N/A
Stent placement (%)	89.3	79.1	73.2

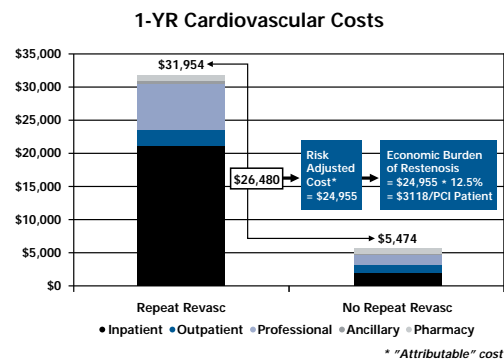
STUDY LIMITATIONS

- Absence of detailed angiographic data unable to distinguish target from non-target lesion revascularization
 - only able to estimate the clinical restenosis rate
- Managed care payments do not equal medical care or hospital costs
 - but, this is not a limitation from the managed care payer perspective

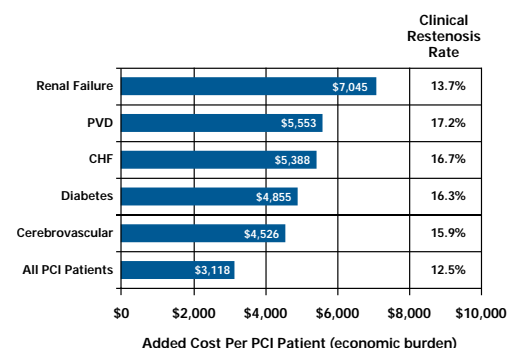
KEY TAKE AWAYS

Estimated Clinical Restenosis Rate for MCO PCI Patients =	12.5%
(mean # repeat revascs./restenosis patient) =	1.29
Additional MCO Cost per Restenosis Patient =	\$24,955
Marginal Cost per MCO PCI Patient =	\$3,118
DE Stent Cost-Offsets per PCI Patient for 50%-100% Restenosis Reduction	\$1,559 - \$3,118

MCOs Pay - \$32,000 in Follow-Up Costs per Repeat Revascularization Patient per Year



MCO Restenosis Costs Are Even Greater in Patient Subgroups



**MANAGED CARE PLANS COULD DERIVE
SIGNIFICANT ECONOMIC BENEFITS
FROM DRUG-ELUTING STENTS.**