Results: Population consisted of 78% of males, mean age: 66 yrs ± 11 yrs. Indica-
tions for DES were 31% of ACS, 33% of silent ischemia and 35% of ACS. Risk factors
were well balanced between the 2 populations: hypertension (68.0% P vs 66.8% X),
hypercholesterolemia (63.0% P vs 63.4% X), diabetes (30.1% P vs 28.1% X),
insulin-treated diabetes (7.8% P vs 7.1% X), current smoking (22.0% P vs 20.9% X).
Mean number of stents implanted per patient was 1.7 ± 1.1. Procedural success was
very high in both groups: 97.6% in recipients of PROMUS Element stents and 97.8
% for XIENCE PRIME®. At 30 days, clinical events were TFV 1.2% in P vs. 0.8% in
X (p=0.56) including all death 0.6% in P vs 0.5% in X (p=0.99), MI 0.7% in P vs.
0.5% in X (p=0.74) and TVR 0.1 % in P vs. 0.1 in X (p=0.85). Stent Thrombosis
(define dev probable) was 0.6% in P vs. 0.2% in X (p=0.21).
Conclusions: Non inferiority in 30-day outcome was observed between the 2 stents:
the primary endpoint (12-month outcome) will be available for the meeting.

TCT-16
Incidence, mechanisms and outcome of longitudinal stent deformation (LSD)
associated with Element, Resolute, Biomatrix and Xience stents: angiographic
and case-by-case review of 1,800 cases.
Samer Arnous1, Nizar Shakhshir1, Mamas Mamas2, Fath-Ordoubadi Farzin1,
Andrew Wiper1, Karim Ratib1, Paul D. Williams1, Magdi El-Omari1,
Douglas G. Fraser1
1Manchester Royal Infirmary, Manchester, United Kingdom, 2Manchester Heart
Centre, Manchester, Manchester, 3University Hospital of North Staffordshire, Stoke-
on-Trent, United Kingdom, 4St Vincent’s Hospital, Melbourne, VIC, 5Manchester
Heart Centre, Manchester, United Kingdom, 6Manchester Royal Infirmary,
Manchester, Manchester
Background: The incidence of LSD is unknown. The aims of this study were to
estimate the incidence of LSD associated with 4 commonly used DES platforms;
to compare the mechanism of LSD across platforms; to estimate the incidence of major
complications and assess angiographic procedural factors associated with LSD.
Methods: Angiographic and case details for 1,800 PCI cases were examined indi-
vidually by a panel 3 experienced interventional cardiologists. This cohort included
450 consecutive PCI procedures associated with the use of Promus Element, Xience V,
Biomatrix Flex and Resolute Integrity stents respectively. We classi-
ed cases as: no LSD, LSD, and stent not visible. Cases of LSD were classi-
ed according to mechanism (guide catheter or secondary device related). Treatment, subsequent clinical outcome and cases in which re-entry of the stent following LSD was difficult
were recorded.
Results: LSD was detected in a higher proportion with the Promus Element (3.1%) com-
pared to other platforms (Xience V 0.9%, Biomatrix 0.7%, Resolute 0.7%;
p=0.002). Guide catheter related LSD occurred equally in all 4 platforms; Promus
Element 1.1%, Xience V 0.9%, Biomatrix 0.7%, Resolute 0.7%; p=0.85. However, 9
24 cases were caused by a secondary device, all of which occurred on the Promus
Element stent (p<0.0001). Stent thrombosis occurred in 1 of the 3 cases in which LSD
was not identified at the time of procedure. Difficulty re-entering the deformed stent
was encountered in 6 cases, all of which were in cases of secondary device impact on
Promus Element stents. Univariate predictors of LSD were previous CABG, culprit
vessel, ostial involvement and lesion tortuosity. Multivariate predictors of LSD were
the Promus Element stent, Guideline use, post-dilatation balloons and number of stents
deployed.
Conclusions: LSD is more common than previously reported.LSD in ostial lesions
caused by guide catheter or guide catheter extension occurred equally with all plat-
forms. LSD associated with secondary devices only occurred with the Promus Element
stent, complicating >3% of procedures where it was frequently associated with difficulty re-
entering the deformed stent. However, no sequelae were detected when LSD was
recognised and treated.

TCT-17
Current Perspectives On Stent Fractures: Trends, Characteristics And Outcomes
From The Food And Drug Administration Manufacturer And User Facility
Device Experience Database
Alfazir Omar1, Hivrono Kitabata1, Lakshmana Pendyala1, Israel Barbazik1,
Salem Bash1, Joulaa P. Lok1, Marco A. Magalhaes1, Saar Minha1, Hiduaki Ota1,
Fang Chen1, Rebecca Torguson1, Kenneth Kent1, Augusto Pichard3,
Lowell F. Satler1, Bruce R. Brodie2, Thomas Stuckey1, Ke Xu1, Ajas J. Kirtane1,
Bernhard Witzenbichler2, Giora Weiss1, Michael J. Reinaldi1, Franz-Josef Neumann1,
D. Christopher Metzger3, Timothy D. Henry1, David Cox1, Peter L. Dufuy1,
Ernest L. Muzzafferi1, Roxana Mehran1, Gregg Stone1
1UNC Chapel Hill/Cone Health, Greensboro, North Carolina, Greensboro, NC,
2LeibRau CV Research Foundation, Greensboro, NC, 3LeibRau Cardiovascular
Research Foundation, Greensboro, NC, 4Cardiovascular Research Foundation,
New York, NY, 5Columbia University / Cardiovascular Research Foundation, New
York, NY, 6Charité Campus Benjamin Franklin, Berlin, Germany, 7Columbia University,
New York, United States, 8Sanger Heart & Vascular Institute, Charlotte, NC,
9Universitäts-Herzzentrum Freiburg - Bad Krozingen, Bad Krozingen, Germany,
10Wellmont CVA Heart Institute, Kingsport, TN, 11Minnesota Heart Institute
Foundation at Abbott Northwestern Hospital, Minneapolis, United States, 12Lehigh
Valley Health Network, Allentown, PA, 13Pinexcerpt Cardiology, Pinexcerpt, NC,
14Ohio State University, Dublin, OH, 15Mount Sinai Hospital, New York, NY,
16Columbia University Medical Center and the Cardiovascular Research Foundation,
New York, United States
Background: Stent thrombosis (ST) remains a major concern in patients with acute
coronary syndromes (ACS) treated with drug-eluting stents (DES).
Methods: ADAPT-DES was a multicenter prospective study evaluating outcomes in
8,583 patients treated with DES, aspirin, and clopidogrel, and evaluated with platelet
reactivity testing. The frequency and consequences of 1-year ST (definite/probable)
were evaluated in the subset of 4,436 patients with ACS (STEMI [n=813], NSTEMI
[n=1,250], unstable angina [UA; n=1,373]).
Results: ST within 1 year occurred in 50 patients (1.1%) and was associated with high
1-year rates of mortality (30.4%) and myocardial infarction (82.6%). ST occurred
early versus later generation DES (1.5% vs 0.9%, p=0.043), hypertension (4.5% vs
1.9%, p=0.03), and post-clopidogrel (PRU 208) (1.8% vs 0.6%, p=0.02), and
low platelet reactivity (PRU 208) (1.8% vs 0.6%, p=0.02). Independent
predictors of ST by Cox regression are shown in the Table.

TCT-18
Clinical and Procedural Predictors and Consequences of Stent Thrombosis
Following Drug-eluting Stents for Acute Coronary Syndromes: Results From
the ADAPT-DES Study
Ankit Garg1, Bruce R. Brodie2, Thomas Stuckey1, Ke Xu1, Ajas J. Kirtane1,
Bernhard Witzenbichler2, Giora Weiss1, Michael J. Reinaldi1, Franz-Josef Neumann1,
D. Christopher Metzger3, Timothy D. Henry1, David Cox1, Peter L. Dufuy1,
Ernest L. Muzzafferi1, Roxana Mehran1, Gregg Stone1
1UNC Chapel Hill/Cone Health, Greensboro, North Carolina, Greensboro, NC,
2LeibRau CV Research Foundation, Greensboro, NC, 3LeibRau Cardiovascular
Research Foundation, Greensboro, NC, 4Cardiovascular Research Foundation,
New York, NY, 5Columbia University / Cardiovascular Research Foundation, New
York, NY, 6Charité Campus Benjamin Franklin, Berlin, Germany, 7Columbia University,
New York, United States, 8Sanger Heart & Vascular Institute, Charlotte, NC,
9Universitäts-Herzzentrum Freiburg - Bad Krozingen, Bad Krozingen, Germany,
10Wellmont CVA Heart Institute, Kingsport, TN, 11Minnesota Heart Institute
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[n=1,250], unstable angina [UA; n=1,373]).
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predictors of ST by Cox regression are shown in the Table.