compared to those with LVEF>30%. Thirty-day all-cause mortality was not significant different between the two groups (11.1% vs 6.3%, p=0.14, HR 1.81, 95% CI 0.81-4.06). Patients with LVEF ≤30% had a trend toward higher risk of 30-day cardiac mortality (11.1% vs 5.3%, p=0.06, HR 2.16, 95% CI 0.95-4.90), which disappeared after multivariable adjustment (p=0.22). In a prespecified subgroup analysis restricted to patients with LVEF≤30%, patients with baseline mean transvalvular gradient < 40 mmHG (low-gradient) presented a non-significant higher risk of all-cause death (31.6% vs 12.0%, p=0.14, HR 2.46, 95% CI 0.69-8.74) and of cardiac death (23.7% vs 12.0%, p=0.32, HR 1.90, 95% CI 0.51-7.03) as compared to patients with mean transvalvular gradient ≥40 mmHg (high-gradient).
Conclusions: Baseline severe impairment of LVEF is not a predictor of increased short-term and mid-term mortality after TAVI. Among patients with severe impairment of left ventricular function, those with low transvalvular gradient deserve a careful evaluation because of numerically higher mortality rates. Selected patients with severe impairment of left ventricular function should not be denied TAVI.

TCT-722

Transfemoral Implantation of the balloon-expandable Edwards SAPIEN 3 Aortic Valve without Predilation

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Background: Aortic valve implantation without balloon predilation may facilitate the procedure, reduce rapid pacing duration and may impact the stroke rate. For the self-expandable CoreValve this strategy has been shown to be feasible and safe in small studies. Whether direct aortic valve implantation is applicable to the balloon-expandable Edwards SAPIEN 3 valve is unknown. is applicable to the balloon-expandable Edwards SAPIEN 3 valve is unknown. The aim of the present study was to evaluate the feasablity and safety of transfemoral implantion of the Edwards SAPIEN 3 aortic valve without balloon predilation.
Methods: Forty one consecutive patients with severe symptomatic aortic stenosis and high surgical risk were prospectively enrolled to receive the Edwards SAPIEN 3 aortic valve without predilation.
Results: Mean age of the patients was 83.2 ± 5.9 years, 58 % were male. Successful implantation without predilation was achieved in 95.1 % of patients. In 2 patients (4.8 %) the prosthesis could not cross the native aortic valve due to severe asymmetric calcification and an aortic valve orifice area (AOA) of 0.4 and 0.5 cm2, respectively. After predilation was performed from the contralateral site, the valve could be successfully implanted in both patients. Post-dilation was performed in one patient due to moderate aortic regurgitation. The cardiovascular 30 day MACCE rate was 2.4 %, total mortality was 9,7% , reasons for death were pneumonia (1pt), urosepsis (1pt), and subarachnoidal bleeding (1pt).
Conclusions: Transfemoral implantation of the Edwards SAPIEN 3 aortic valve without balloon predilation is feasable and safe in the majority of patients, limitations are severe asymmetric valve calcification in combination with AOA of 0.5 cm2 or less.

TCT-723

The Cost of TAVR: Association Between Length of Stay and the Cost of Transfemoral Transcatheter Aortic Valve Replacement in Medicare Patients

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Background: Reducing length of stay (LoS) in selected TAVR patients is both safe and feasible, but its role in mitigating healthcare costs has not been fully evaluated.
Methods: Using the Medicare Provider Analysis and Review File, we retrospectively analyzed 4,464 Medicare patients who underwent transfemoral-TAVR and were discharged alive in fiscal year 2012. Hospitalization cost and discharge disposition were assessed for 5 LoS cohorts (Table 1). Multivariate regression modeling, based on patient demographics, comorbidities, and complications, was used to derive an adjusted mean cost for each cohort. The 2013 MedPAR files, available shortly, will also be analyzed and incorporated prior to presentation.
Results: The unadjusted mean hospitalization cost of transfemoral-TAVR cases was $61,130 and the mean LoS was 7.7 days. Compared to patients with a LoS of 6-7 days, short-stay patients (discharged on day 1-3) had an unadjusted cost difference of -$8,216 (p< 0.0001) and an adjusted difference of -$6,036 (p< 0.0001). Importantly, patients discharged earlier were less likely to require assistance at discharge (65% vs 42%, p< 0.0001). Temporal trends between 2012 and 2013 will also be analyzed.
Conclusions: Early discharge in selected patients can have meaningful cost savings at a program level. Additionally, patients discharged early require less post-acute care services than patients with longer stays, alleviating concerns that early discharge of Medicare patients may be associated with higher societal costs. Efforts aimed at optimized patient selection and peri-TAVR care with a view to reducing LoS are warranted.

Table 1. Hospitalization Cost and Discharge (D/C) Disposition by Length of Stay

LoS Cohort	N	Unadjusted		Adjusted			
		Total Cost	Home D/C	Incr. Cost*	P-value	Home D/C Reduction*	P-value
All	4,464	$61,130	33%	--	--	--	--
1-3d	768	$48,497	65%	--	--	--	--
4-5d	1,207	$51,850	42%	+$2,316	0.032	-21%	<0.001
6-7d	938	$56,713	28%	+$6,036	<0.001	-34%	<0.001
8-9d	505	$61,792	16%	+$10,167	<0.001	-45%	<0.001
≥10d	1046	$84,757	11%	+$28,572	<0.001	-48%	<0.001

*Compared to short-stay group (1-3 day LoS)

TCT-724

Preprocedural But Not The Periprocedural High-sensitive Troponin T (hsTNT) Levels Predict Outcome In Patients Undergoing Transcatheter Aortic Valve Implantation (TAVI)

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Background: TAVI has gained significant relevance in the treatment of inoperable or high-risk patients with symptomatic aortic stenosis. Several risk scores have been proposed to estimate the perioperative and long-term risk of patients undergoing TAVI. However, assessment of individual risk remains difficult. We thus aimed to analyze whether biomarkers may improve risk stratification.
Methods: We prospectively included 267 patients undergoing TAVI (using balloon-expandable Edwards Sapien XT prostheses) at our institution from Feb. 2011 until Dec. 2013. n=260 patients were available for complete follow up. 56.2% were females, mean age was 81.9 years (± 6.8 years), 57.3% were treated via transfemoral, 28.1% transapical, 14.6% transaortic access. Biomarkers (hsTNT and NTproBNP) as well as other parameters were measured a day before TAVI, 3 and 7 days post-procedure. 11.2% had severely reduced EF, and mean log. Euroscore (ES) was 26.3% (± 17%). Median follow-up was 262 days (IQR 77-501d), the primary endpoint was survival time; a total of 74 deaths (27.7%) occurred. 30d mortality was 6.0%. All possible prognostic factors were analyzed by Cox regression analysis with backward selection based on the likelihood ratio criteria.
Results: Median preprocedural hsTNT values were 28.4 pg/ml (IQR 16.2-46.1 pg/ml). From all potential prognostic factors, preprocedural hsTNT (HR=2.67 for upper quartile vs. quartiles 1-3, CI 1.63-4.38, p< 0.001) and the log. ES (HR=1.98, CI 1.2-3.27 p=0.006) emerged as independent prognostic parameters for adverse outcome. In contrast, unimpaired renal function appeared to be protective (HR=0.48, CI: 0.21-1.06, p=0.047). In addition, we also tested whether the VARC-2 cut-off for myocardial damage (hsTNT peak value exceeding 15× as the upper reference limit, ≥210 pg/ml) was of prognostic relevance. At 72 h post-TAVI, n=87 pts (37.5%) had hsTNT levels ≥210 pg/ml. However, these pts did not reveal a significant difference in survival compared to pts with a hsTNT < 210 pg/ml at this timepoint.
Conclusions: In conclusion, elevated preprocedural hsTNT is an independent risk predictor of all-cause death while periprocedural hsTNT elevation failed to exhibit prognostic relevance.

TCT-725

Impact of Mitral Regurgitation on Clinical Outcomes After Transcatheter Aortic Valve Implantation: Results from Asian TAVI Multicenter Registry

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Background: The impact of preoperative mitral regurgitation on clinical outcome of patients undergoing TAVI is controversial. This study is to assess the contribution of mitral regurgitation to clinical outcomes after TAVI.
Methods: Data from Asian TAVI multicenter registry were pooled and analyzed. In total, 185 patients with severe symptomatic aortic stenosis undergoing TAVI were included. 16 patients (8.6%) had preoperative mitral regurgitation ≥ moderate and the study patients were divided into 2 groups according to preoperative mitral regurgitation: group I (mitral regurgitation ≤ mild) and group II (≥ moderate).
Results: Baseline LVEF and aortic valve area were smaller in Group II, but there were no difference in other demographics including age, sex, diabetes, hypertension, previous PCI, previous CABG, peripheral artery disease, mean pressure gradient and Logistic EuroSCORE. There was no difference in device success rate (79.7% vs. 81.3%; p > 0.99), however 30-day mortality was higher in group II (30-day mortality: 1.5% vs. 18.8%; Relative Risk, 12.53; 95% confidence interval [CI], 2.31 – 98.84;