started invasive hemodynamic monitoring 7.2 days prior to LVAD placement. While not significantly different with respect to age, race, gender, or comorbidities, patients with invasive hemodynamic monitoring

Patients who underwent early transplant after LVAD did not show a similar mortality benefit (26.8% vs. 27.3%, p = 0.946).

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In-hospital mortality rates stepwise decreased with duration of Swan-Ganz catheterization, dropping from 26% mortality in patients catheterized for 1-2 days to 15% mortality in patients catheterized for ≥13 days before LVAD implantation (p<XXX). Compared to patients who underwent LVAD implantation but did not receive Swan-Ganz catheterization, patients who were catheterized for 1-2 days had decreased mortality (15.4% vs. 28.5%, p <XXXX). Patients who underwent Swan-Ganz catheterization for only 1-2 days prior to LVAD implantation did not exhibit a similar mortality benefit (27.2% vs 28.5%, p<XXXX)

The

Validations for Table 1:

Age: The average age of adult LVAD recipients for all indications in the United States is 51 years. Mortality trends also consistent (http://circ.ahajournals.org/content/123/14/1559.full)

Gender: male to female ratio (http://openheart.bmj.com/content/1/1/e000109/T1.expansion.html)

Race: most common in white, black second, consistent (http://openheart.bmj.com/content/1/1/e000109/T1.expansion.html)

Income status:

Year: There were substantial declines in in-hospital (57.9–6.0%), 30-day (52.3–9.0%) from 2004 to 2011 and in 1-year mortality rates (69.2–31.2%) from 2004 to 2010, all p values <0.01 for linear trends (http://openheart.bmj.com/content/1/1/e000109/T1.expansion.html)

Concomitant diagnosis: Need to find

Hospital type:

OHT+ mortality: not consistent likely because it is in-hospital transplantation rather than long-term stuff

OHT- mortality:

LVAD in-hospital mortality = 26.8%, consistent with LVAD in-hospital mortality reported in (discussion section: <http://circ.ahajournals.org/content/116/5/497.long>)

Length of stay: No significant changes were noted for the overall LOS (23.6 days in 2004–27.3 days in 2011)

Bride to transplant in hospital mortality not much data out there.

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2607106/>

<http://www.ncbi.nlm.nih.gov/pubmed/16836733/>

<http://www.ncbi.nlm.nih.gov/pubmed/23321132> (OHT+ but for long term LVAD)

Timing of OHT:

http://www.ncbi.nlm.nih.gov/pubmed/18539472/

<http://www.ncbi.nlm.nih.gov/pubmed/15173738/> (this is the most relevant one)

<http://www.ncbi.nlm.nih.gov/pubmed/20447659/>

Limitations

From http://cdn.intechopen.com/pdfs-wm/15756.pdf:

The plausible explanation underlying this finding is when a patient requires a VAD usually they are in decompensated state of heart failure. In this state, there often maintain a similar degree of other end-organ injury mainly renal dysfunction. Weeks of hemodynamic support are required to achieve normalization of end-organ function and are concordant with prior reports that have demonstrated improvement of both hepatic and renal function during long-term VAD support (Gammie). Therefore the general rule is to wait a few weeks between time of VAD insertion and before heart transplantation.

<http://www.ncbi.nlm.nih.gov/pubmed/15173738> (Gammie et al, Optimal timing of cardiac transplantation after ventricular assist device implantation using data from United Network for Organ Sharing)

LVAD definition fromhttp://openheart.bmj.com/content/1/1/e000109/T1.expansion.html

We defined LVAD implantations as hospital discharges that included the ICD-9-CM procedure code for LVAD implantation (37.66). To isolate LVADs placed for long-term therapy, we excluded codes 37.62, 37.65 and 37.68 used for temporary non-implantable, or external or percutaneous external assist devices.