1. **PICO Question:**
   - **Population:** Adults with advanced heart failure undergoing LVAD implantation
   - **Intervention:** LVAD
   - **Comparison:** patients receiving LVAD + tricuspid valve surgery (repair or replacement)
   - **Outcomes:** cardiopulmonary bypass time, early postoperative use of RVAD, renal failure, early mortality, postoperative length of stay and duration of inotropic support

2. **Search Strategy:**

**Search strategy LVAD tricuspid 5/10/2014**

Scopus
(TITLE-ABS-KEY((lvad* OR "left ventricular assist*" OR "heart assist devices" OR "heart mate" OR heartware) AND (tricuspid OR tvrpr OR tvr))) AND (procedure* OR replace* OR repair* OR annuloplast* OR prosthe*)

Your query: ((TITLE-ABS-KEY(lvad* OR "heart assist" OR "left ventricular assist") AND TITLE-ABS-KEY(tricuspid* OR tvrpr OR tvr)) AND PUBYEAR > 1999) AND (trial* OR observ* OR series OR cohort* OR prospective* OR retrospective* OR compar* OR follow-up) AND (LIMIT-TO(LANGUAGE, "English"))

WoS
Topic=((lvad* or "heart assist" or "left ventricular assist") AND (tricuspid OR Tvrpr OR tvr)) 77 Timespan=2000-2014. Databases=SCI-EXPANDED.

Ovid MEDLINE(R) In-Process & Other Non-Indexed Citations and Ovid MEDLINE(R) 1946 to Present

# Searches

1. lvad*1.mp. or heart-assist devices/ or "heart assist".mp. or "left ventricular assist".mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept, rare disease supplementary concept, unique identifier]

2. tricuspid valve/su or tricuspid insufficiency/su
   (tricuspid valve/ or tricuspid insufficiency/) and (annuloplast*.mp. or heart valve prosthesis/ or heart valve prosthesis implantation/ or repair*.mp. or replace*.mp. or tvr.pr.mp. or tvr.mp.)

3. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept, rare disease supplementary concept, unique identifier]

4. 1 and (2 or 3)

5. 1 and tricuspid*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, keyword heading word, protocol supplementary concept, rare disease supplementary concept, unique identifier]

6. limit 5 to (english language and yr="2000 - 2013")

7. 4 or 6
# Searches

Ivad*1.mp. or heart-assist devices/ or "heart assist".mp. or "left ventricular assist".mp.
1 [mp=title, abstract, subject headings, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword]

2 left ventricular assist device/

3 1 or 2

4 tricuspid valve/

5 tricuspid valve disease/ or exp tricuspid valve regurgitation/ or exp tricuspid valve stenosis/

6 tricuspid annuloplasty/

7 tricuspid valve/su or (tricuspid valve disease/su or exp tricuspid valve regurgitation/su or exp tricuspid valve stenosis/su)

8 tricuspid valve procedure/ or tricuspid valve replacement/ or 6 or tricuspid repair/

9 (4 or 5 or tricuspid*.mp.) and (annuloplast*.mp. or heart valve prosthesis/ or heart valve prosthesis implantation/ or repair*.mp. or replace*.mp. or tvrpr.mp. or tvr.mp.) [mp=title, abstract, subject headings, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword]

10 6 or 7 or 8 or 9

11 3 and 10

12 limit 11 to (english language and yr="2000 - 2014")