

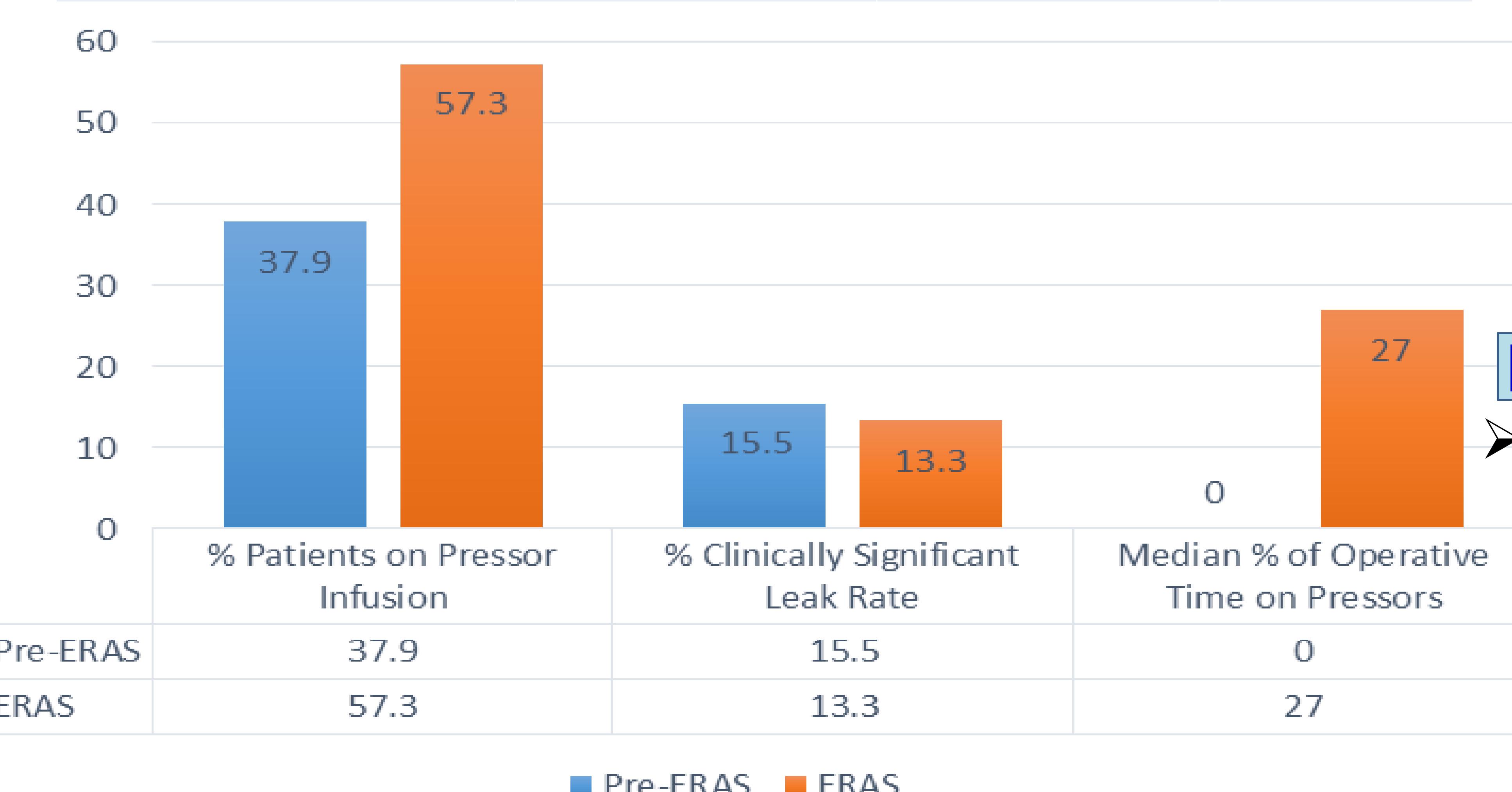
## Background

- ERAS pathways have been increasingly implemented for various surgical procedures, including pancreatic surgery
- Goal Directed Fluid Therapy (GDFT) is an essential component of many ERAS pathways<sup>1</sup>
- GDFT selectively limits volume administration and is associated with increased vasopressor use
- Various reports suggest that vasopressor use is associated with increased anastomotic failure
- The true effects of vasopressor use on surgical outcomes, and pancreatic fistula rates are inadequately defined in the literature

## Methods

- Instituted a prospective, funded IRB approved quality initiative of pancreatic ERAS pathway in July 2014
- Retrospective chart review of pancreatectomy from January 2013 to February 2016, before and after ERAS implementation
- Charts reviewed for demographics, comorbidities, intraoperative vasopressor use, and pancreatic fistula as defined by International Study Group of Pancreatic Surgery (ISGPs)<sup>2</sup>
- Binomial regression, weighted by stabilized inverse probability-of-treatment weights, was used to estimate the effects of ERAS and intraoperative vasopressors on the risk of pancreatic leaks

	Pre-ERAS 58 (43.6%)	Post-ERAS 75 (56.4%)	p-value
Procedure, n (%)			
Whipple	41(70.7)	47(62.7)	0.36
Distal	17(29.3)	28(37.3)	--
Age (yrs)	60	63	0.12
BMI (kg/m <sup>2</sup> )	26.4	27.5	0.47
ASA Classification	3	3	0.38
Female	31(53.4)	31(41.3)	0.29
Male	27(46.6)	44(58.7)	--
Smokers, n (%)	15(25.9)	14(18.7)	0.40
Comorbidities, n (%)			
Diabetes Mellitus	24(41.4)	23(30.7)	0.21
Hypertension	29(50.0)	49(65.3)	0.08
COPD	5(8.6)	5(8.0)	0.99
CHF	1(1.7)	1(1.3)	0.99
CAD	3(5.2)	11(14.7)	0.09
Renal Insufficiency	1(1.7)	5(6.7)	0.23
Readmissions, %	15.5	9.5	0.421
Length of Stay, days	10.2	8.0	--
Vasopressor usage, n (%)			
Yes	22(37.9)	43(57.3)	0.04
No	36(62.1)	32(42.7)	--
Vasopressor time, med (IQR)	0.00 (0.00-0.19)	0.27 (0.00-0.67)	0.02



## Results

- 133 total patients: 58 Pre-ERAS, 75 ERAS
- Significant increase in patients requiring vasopressor infusion in ERAS cohort
  - 57.3% vs. 37.9%, p=0.04
- Significant increase in median proportion of OR time on vasopressors in ERAS cohort
  - 27% vs. 0.0%, p=0.02
- Incidence of clinically significant leaks was 14.3%, and was not significantly different between the cohorts
- Readmissions and length of stay was not significantly different between the cohorts
- 65 patients (48.9%) were treated with vasopressors infusion during surgery
- Even after weighting for smoking, DM, HTN, COPD, CHF, CAD, and CRI:
  - NO significant changes in the risk of leaks between the pre- and post- ERAS cohorts with RD -0.02, 95% CI -0.14-0.10
  - NO significant changes in the risks of leaks between the groups with or without vasopressor infusion RD 0.02, 95% CI -0.10,0.14)

## Discussion

- Increased use of vasopressor infusions as a part of GDFT in an ERAS pathway does not cause an increase in the rate of clinically significant pancreatic fistulas.

### References:

1. Can J Anaesth. 2015 Feb;62(2):158-68.
2. Ann Surg. 2007 Mar;245(3):443-51.