

Is Fast track surgery (FTS) – as safe in revisional surgery as in primary cases?

Abdelrahman M. Galal, Evert-Jan Boerma, Sofie Fransen, Berry Meesters, Steven Olde Damink and Jan Willem Greve



Department of surgery Zuyderland Medical Center,

Dutch Obesity Clinic South, Maastricht University Medical Center, The Netherlands,







- <u>Fast track surgery (FT)</u>: coordinated perioperative approach aimed at reducing surgical stress and facilitating postoperative recovery
- <u>Aim :</u>

zuyderland

- 1. Compare the efficacy and safety of FT perioperative protocol for management of primary and revision bariatric patients.
- 2. Identify factors that may limit early discharge in both groups.
- End points:
 - 1. Primary endpoint: length of stay (LOS) = discharge time admission time
 - 2. Secondary endpoints: 30 days clinical outcomes of early discharge
 - Frequency of hospital contact
 - Readmission rate
 - Surgical complications that needed re-intervention.

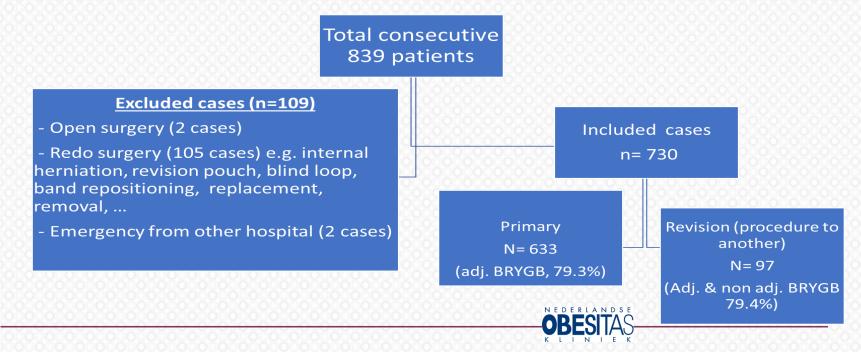


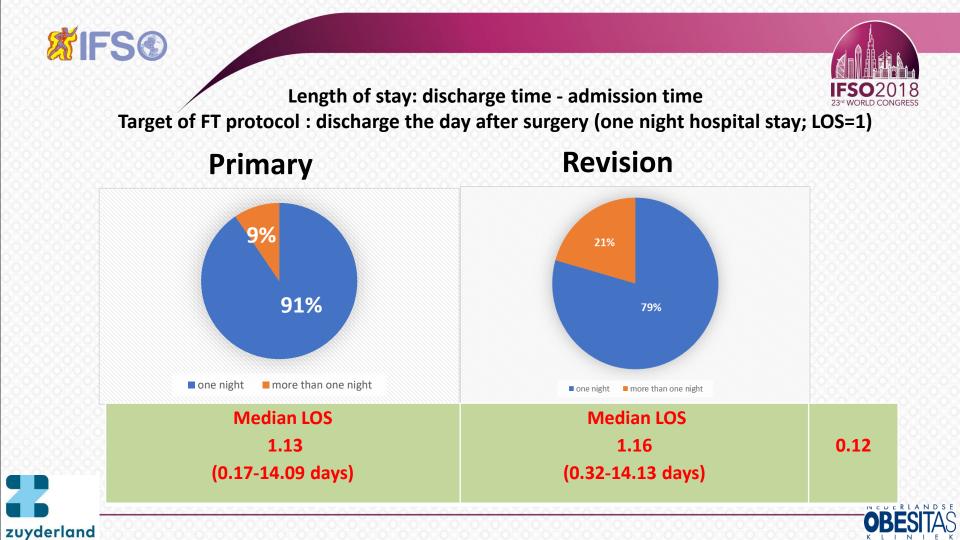




- Retrospective , prospective collective data of 30 days outcomes
 - January 2016- December 2017

zuyderland









Difference in clinical outcomes between FT managed primary and revision bariatric patients (total population = 730)

	Primary (n= 633, %)	Revision (n=97, %)	P value
Contact to the hospital	156 (24.6%)	30 (30.9%)	0.186
Readmission	39 (6.2%)	13(13.4%)	0.010
Reintervention	19 (3%)	6 (6.2%)	0.108









Most common causes of LOS 2 nights or more

- ✓ Nausea and vomiting
- ✓ oral intolerance, dysphagia
- ✓ Abnormal signs "not good patient" (fever, tachycardia, trocar bleeding, tired or exhausted)









Predictors for LOS (LOS ≥2)

Multivariate regression analysis(sig. <0.05)

1ry v	ersus revision procedure	Sig.	RR	95% CI f	CI for EXP(E	
				Lower	Uppe	
	Sex (female)	.053	2.431	.987	5.983	
	Hypothyroidism	.006	3.201	1.386	7.392	
	Asthmatic	.020	2.914	1.183	7.181	
	Operative time (every minute)	.003	1.024	1.008	1.040	
	Operative time (more than 2 hours)	.476	.535	.096	2.990	
Primary	Associated non- bariatric procedure	.074	2.466	.917	6.631	
	Age (50 years or more)	.250	1.869	.644	5.426	
Revision	Operative time (more than 2 hours)	.044	3.243	L.033	10.179	









Hospital contact

	Primary (n=633) 156 (24.6%)		Revision (n= 97) 30(30.9%)		
	Ν	readmissio n	N	readmission	
Phone call	97 (15.3%)	8	15 (15.5%)	0	
Emergency room visit	48 (7.6%)	25	16 (16.5%)	13	
Visit outpatient clinic	41 (6.4%)	6	3 (3.1%)	0	
		39		13	

	Primary	Revision
	156	30
	(24.6%)	(30.9%)
Abdominal pain	52	18
Dysphagia/oral intolerance	26	3
Nausea and vomiting	25	3
Constipations	24	4
Question about the medications	16	1
Wound complaints: infection, bleeding,	15	3
haematoma, pain	000000	000000
Fever	0 14 0	2
Bleeding complaints	9	1
Respiratory complaints	8	1
Shoulder pain	00 5000	0 0
Food impaction	3	0
Acute cholecystitis	2	1









Readmission and re-operation

	Readmission after one/ more than one night	Conservative	Endoscopic	Laparoscopic	Endoscopy and laparoscopy	Total readmission
Primary	Discharge after one night	24 (68.5%)	4	3	4	35/573 (6.1%)
	Discharge more than one night	2	2			4/60 (6.6%)
	Total	26	6	3	<u> </u>	39/633
Revision	Discharge after one night	6 (60%)	1	3	0	10/ 77 (13%)
			40	%		(/
	Discharge more than one night	2			00001000	3/20
		More	than 2 hou	rs ope	erative ti	m (^{15%)}
	Total	8	00000010000	3	1	13/97

zuyderland





After one night discharge

	Primary (n=573, %)	Revision (n=77 <i>,</i> %)	P value
Contact to the	139	24 (31.2%)	0.189
hospital	(24.3%)		
Readmission	35 (6.1%)	10 (13%)	0.026
Reintervention	11 (1.9%)	4 (5.2%)	0.072





After one night discharge

Primary group

Readmission: 6.1%

- 70% : conservative
- 30 % reintervention 60 % in revision group.

Revision group

Readmission: 13%

- 60% conservative treatment
- 40 % reintervention





zuyderland

Conclusion



- Fast track protocol is feasible and safe in the revision compared to primary bariatric procedures.
- One day discharge is safe and applicable in primary and revisional surgery
- Operative time is a good predictor for longer hospital stay and for reintervntion in FT managed bariatric patients.
- Operative time is the most important predictor for longer hospital stay (2 nights or more) especially for

revision patients (more than 2 hours).





