

Objective

While quality of surgery has been already investigated in other cancers, the use of measures of quality assurance for surgery is less established in Melanoma. Available literature offers substantial heterogeneity in surgical procedures among Melanoma centers or even among surgeons within the same center. Although adherence to current standards is part of a quality assurance process, the spreading of clinical practice guidelines is not sufficient *per se* to warrant homogeneity and quality of surgical treatment. There is a growing interest in the implementation of a quality assurance program that includes a quantitative analysis of a set of quality indicators, such as those that can be extracted from electronic medical records. The present study focuses on evaluation of the quality indicators about morbidity after surgical treatment for non-metastatic skin Melanoma.

Methods and Materials

Data were extracted from the Central National Melanoma Registry (CNMR) promoted by the Italian Melanoma Intergroup (IMI). All surgical procedures (WE, SNLB or LFND) for non-metastatic skin melanoma between January 2011 and February 2017 were evaluated for inclusion in the study. Only centers with adequate completeness of information (>80%) were included in the study. Short-term complications (wound infection, dehiscence, skin graft failure and seroma) were investigated.

Surgical Procedure	Indicators	Benchmark referral values	
		Present study	International literature
WE	Wound infection	1.1% (0.4% to 2.7%)	4.6-8.4% ^a
	Wound dehiscence	2.0% (0.8% to 5.1%)	3.5-4.6% ^a
	Skin graft failure	unreliable	<2% ^a
SLNB	Wound Infection	1.3% (0.7% to 2.5%)	2.9% (1.5% to 4.6%) ^b
	Wound dehiscence	0.9% (0.2% to 3.0%)	0.24-1.2% ^a
	Seroma	4.2% (1.5% to 11.1%)	5.1% (2.5% to 8.6%) ^b
LFND	Wound infection	4.1% (2.1% to 8.0%)	15.8% ^a
	Wound dehiscence	2.8% (0.9% to 8.6%)	3% ^a
	Wound infection and/or dehiscence	6.5% (2.9% to 14.0%)	21.6% (13.8% to 30.6%) ^c
	Seroma	15.1% (4.6% to 39.9%)	17.9% (10.3% to 27%) ^c

Table 1. Referral values for morbidity rate in the IMI-CNMR study and in the international literature.

Results

Wound infection rate was 1.1% (0.4% to 2.7%) in WE, 1.3% (0.7% to 2.5%) in SLNB and 4.1% (2.1% to 8.0%) in LFND. Wound dehiscence rate was 2.0% (0.8% to 5.1%) in WE, 0.9% (0.2% to 3.0%) in SLNB and 2.8% (0.9% to 8.6%) in LFND. Seroma rate was 4.2% (1.5% to 11.1%) in SLNB and 15.1% (4.6% to 39.9%) in LFND. Unreliable information was found on skin graft failure.

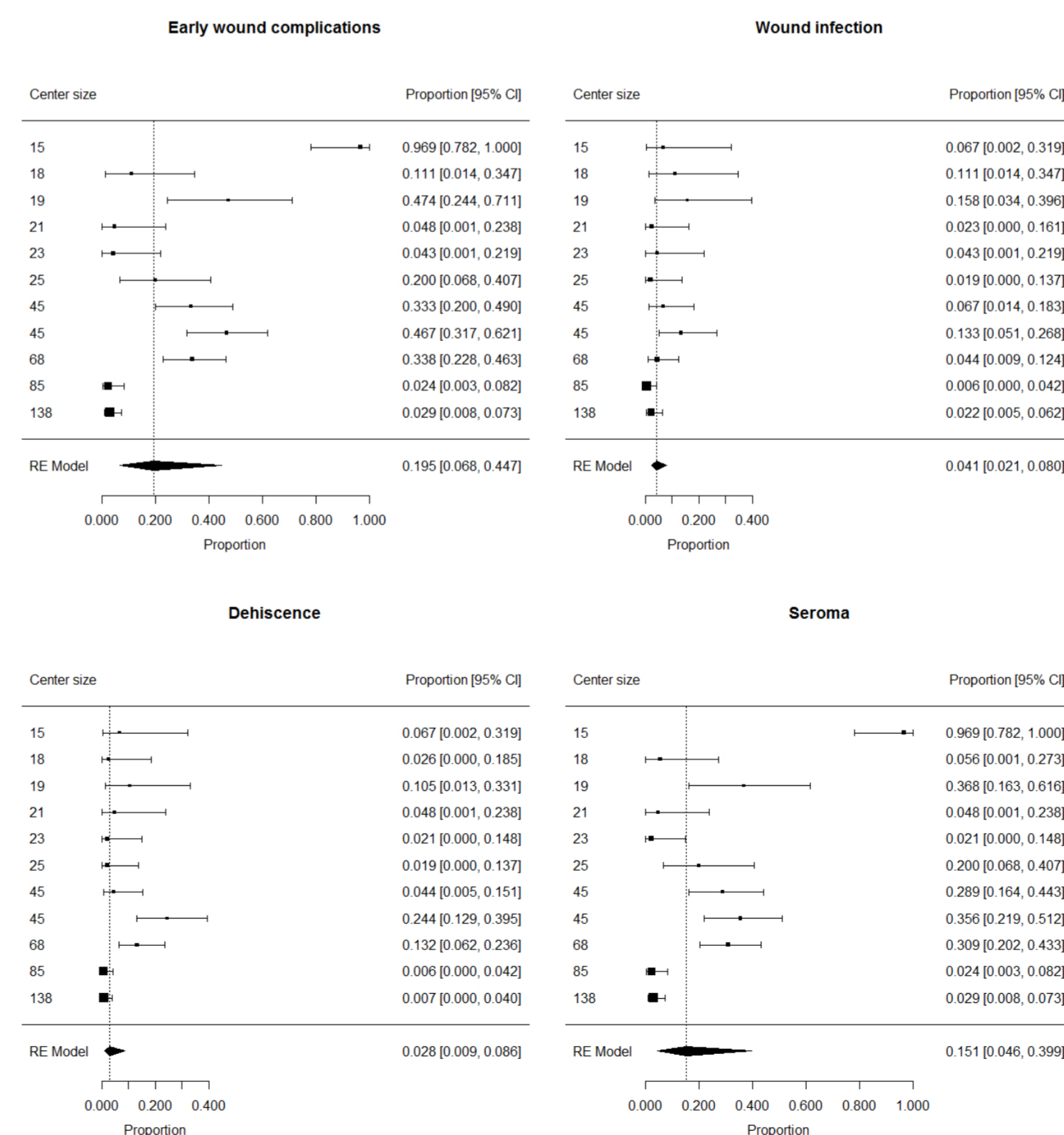


Fig. 1 – Patients developing early wound complications, wound infection, dehiscence and seroma after LFND: forest plot.

Conclusion

The present study contribute to the definition of quality indicators for surgical treatment for non-metastatic skin Melanoma, by adding morbidity indicators that can be used as the basis for a standardized quality assurance program. The importance of this topic relies on the large number of surgical procedures for non-metastatic skin melanoma, thus patient management and prognosis can benefit from quality control and standardization of such procedures.

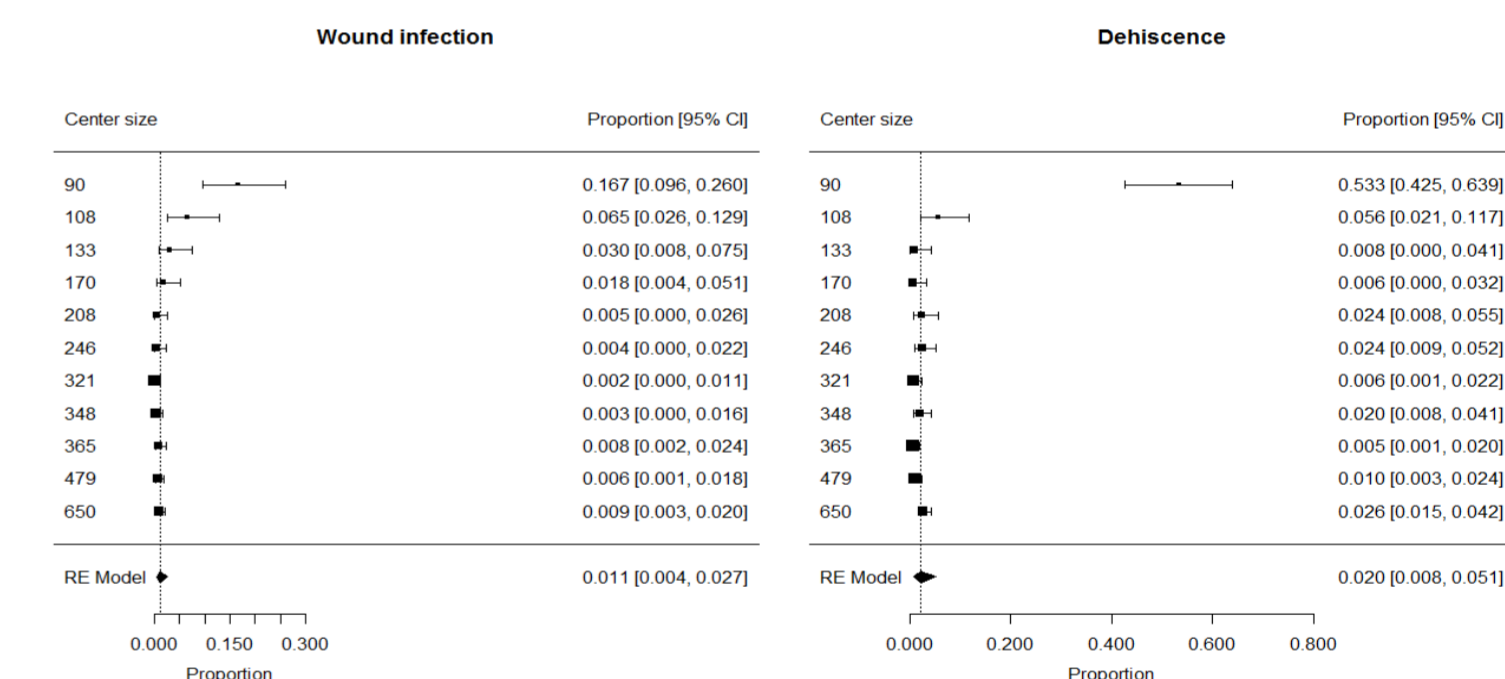


Fig. 2 – Wound infection or dehiscence after WE

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