

Evaluation of Life time of surgical instruments

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Introduction

Health care costs are soaring. In response hospital and payors are looking carefully at health economics of all purchases. Surgical instruments have a wide range in both quality and price. The purpose of this study was to examine the true lifetime of a premium Stille instruments which warranty 30 years of use.

Materials and methods

Technicians working in the surgical sterilization area selected all available Stille brand scissors in active use at the time of the spot survey. No scissors were removed from kits in the operating rooms. The engraved manufacturers code on the scissors was compared to the year code lists provided by Stille AB, Solna, Sweden. Four hospitals of different sizes and areas of Sweden were included: Ersta diakoni, Akademiska, Soderälje and Karolinska Huddinge.

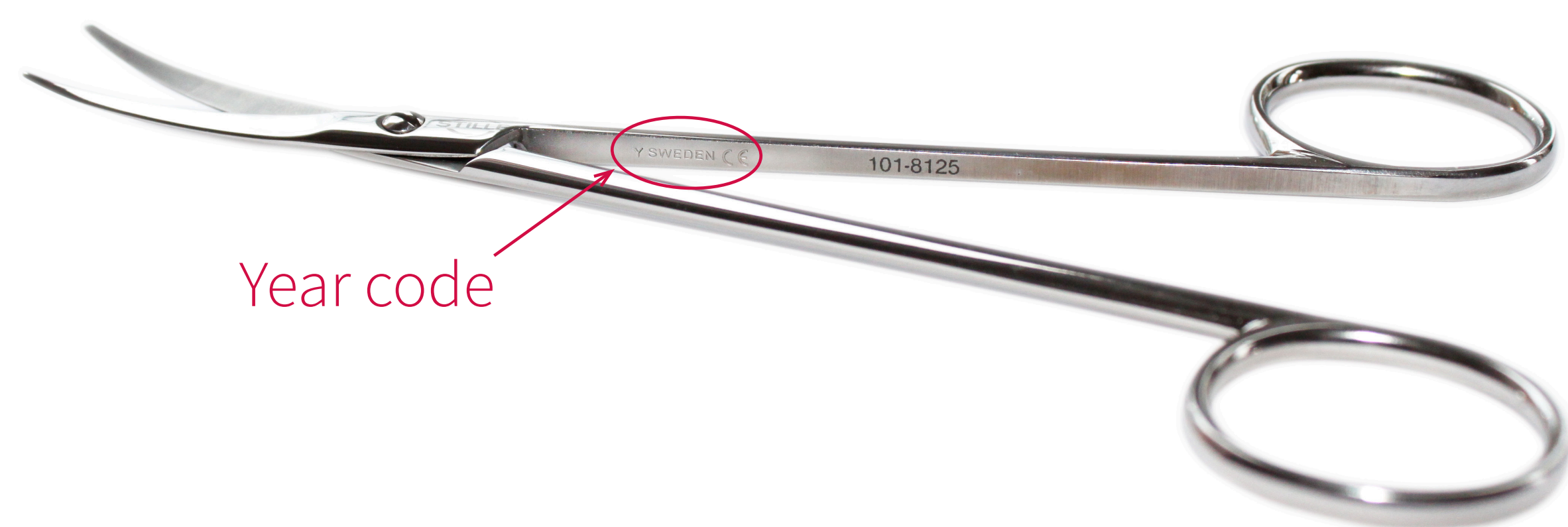


Image 1: Year code engraved on Stille brand scissors

YEAR	CODE	SÖDER-TÄLJE	ERSTA	UAS	HUD-DINGE	TOTAL
1938	8		2			2
1939	9		3			3
1940	0		1			1
1941	1		2			2
1942	2		2			2
1943-1948, 1953 or 1954	Unstamped	11	2		19	109
1949 or 1950	.	7	5	77		12
1978	D 10		1			1
1979	E 10			2		2
1980	F 10	1				1
1981	G 10			3		3
1983	A			6		6
1984	B			3		3
1985	C	2	1			3
1986	D		2	3		5
1988	F	1		2		3
1989	G			7	1	8
1992	K		2		3	5
1993	L			1	1	2
1997	R				2	2
1998	S				3	3
2000	U				1	1
2001	X			1	1	2
2002	Y	1			2	3
2004	4			1		1
2005	5			1	1	2
2008	8			1		1
2009	9			2	1	3
2010	10				3	3
2012	12			3		3
Total # scissors		23	23	113	38	197
# 30 years or older (1982)		19	18	82	19	138
# 50 years or older (1962)		18	17	77	19	131

Table 1: Surgical scissor sampled compared to manufacturers year code

Results

There were Stille scissors at all sites that were 30 years old (70% total). Indeed at the four sites 50% or more of the Stille brand scissors were more than 50 years old.

Discussion

Stille brand scissors are uniquely hand forged. This manufacturing technique allows creation of the highest quality surgical instruments which not only last a practice lifetime (estimated at 30 years) but often a much longer period in both small (Ersta) and large (Akademiska) hospital settings. Hence when making purchasing decisions one might consider not just the one time price of the instruments but the lifetime costs. Manufacturing year code for competitors was not available for this study. However, it is believed from anecdotal tender information that none offer a 30 year warranty.

Conclusion

Stille brand scissors surpass their 30 year warranty and evidence demonstrates Stille scissors may reasonably be expected to be in service more than 50 years. Lifetime costs of this premium brand are likely much lower than competitors.

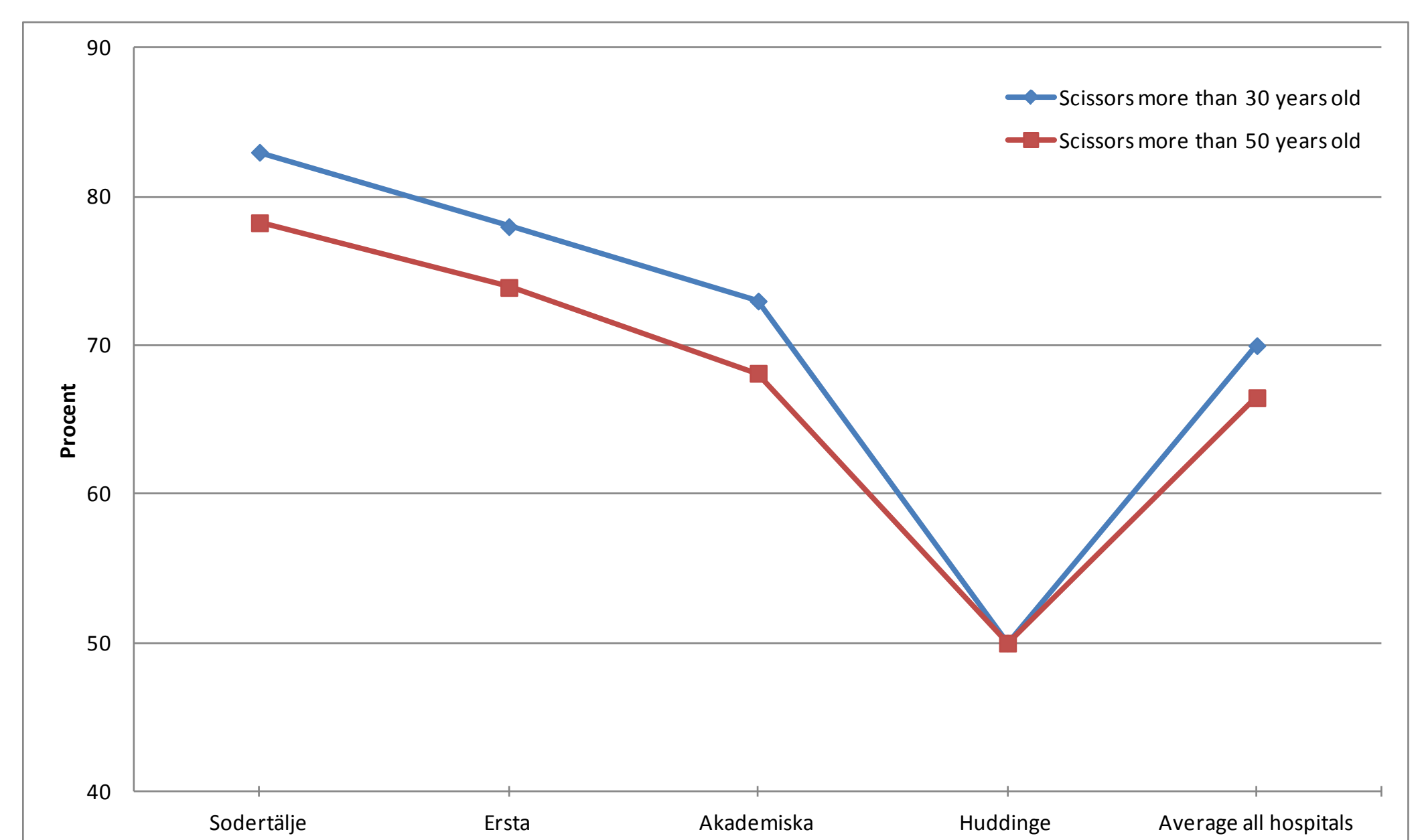


Diagram 1: Comparison instrument lifetime across hospitals

SITE	SCISSORS MORE THAN 30 YEARS OLD (%)	SCISSORS MORE THAN 50 YEARS OLD (%)	# HOSPITAL BEDS	# SURGERIES 2012	DESCRIPTION
Södertälje	83	78	172	6000	Rural hospital
Ersta	78	74			Small specialized surgical center
Akademiska	73	68	1050	28747	University Hospital
Huddinge	50	50	669	15000	Part of Karolinska University medical centers which also includes campus in Solna
Average all hospitals	70	66	630	16582	

Table 2: Comparison instrument lifetime across hospitals

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