

Day Surgery Activities 2009

International Survey on Ambulatory Surgery conducted 2011

Claus Toftgaard

Abstract

Every second year a questionnaire is sent to the member countries of the International Association for Ambulatory Surgery (IAAS). The questionnaire asks for the number of ambulatory procedures in relation to inpatient procedures for a basket of 37 index procedures as well as for the total number of surgical procedures. The procedures are specified by their common names as well as by international coding systems. In

addition to the procedure specific data the member organisations are asked to give information on the national health system and the source for the data.

The data from 2009 are compared to the former survey from 2009 with data from 2007 and data validity is discussed.

Keywords: Ambulatory Surgery, Surgical activity, basket of procedures, number of surgical procedures, percentage of day surgery.

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Introduction

Naturally IAAS has focus upon the activity in ambulatory surgery and the development in the member countries. Therefore it is mandatory to conduct surveys in order to follow the activity in the member countries.

The focus on transmitting surgery – and other medical activity – from inpatient to ambulatory setting is both economic and quality based. Therefore politicians as well as health managers and clinical professionals have an interest in following the development and get inspiration from other countries.

In IAAS we try to elucidate the health systems in the member countries in order to learn which incentives are in use and are useful for the transmission from inpatient to ambulatory.

IAAS surveys have been conducted since 1994 [1,2,3] beginning with 20 procedures and during the last ten years 37 procedures.

Method

A questionnaire regarding the national surgical data were sent in spring 2011 to contact persons in each member country (Fig. 1). The questions consisted of general information about the data – data source and coding system – and national data on surgical activity, total number of procedures, emergency and planned procedures and day surgery procedures. In the general part was also asked for information regarding organisation, reimbursement and opinion on the development in each country.

The specific part includes a basket of 37 surgical procedures (Fig. 2). The procedures are defined by the common used names by surgeons, by ICD9CM codes, and by NCSP codes (used by the Scandinavian countries). For each procedure was asked for number of inpatient cases and for number of ambulatory cases.

In each member country it is up to the contact person to find the national data and secure the best possible validity.

The basket of procedures were chosen about ten years ago according to two criteria: Either procedures that are common to be undertaken as day cases or procedures that are at the cutting edge to show the most recent development of the technical possibilities. This is now the third survey with these 37 procedures.

The procedures are within the different surgical specialties: Eye, ENT, Gynaecology, Orthopaedic surgery, General surgery, Plastic surgery, Urology, and Vascular surgery (Fig. 2).

Results

13 countries and one region answered the survey. The actual percentage of day surgery cases for each procedure is shown for the contributing countries in Tables 1–5 with the results from the preceding questionnaire from 2009 in brackets. Where there are figures that are extraordinary surprising they are marked with an asterix. No effort has been done to clarify these figures in this survey.

In Table 1 are gathered eye and ENT surgery, in Table 2 gynaecology, in Table 3 orthopaedic surgery, in Table 4 general surgery, and in Table 5 urology, plastic, and vascular surgery.

In addition to those member states representatives who have answered the actual questions the results from US Medicare and Hong Kong from the recent questionnaire from 2009 are shown. Unfortunately these members have not given any feed back to the actual survey.

The national data for ambulatory surgery as percentage of all surgery, of planned surgery, and of the basket is seen in Table 6.

Here it can be seen that the German member has given a few general data even if he could not get the procedure specific data. From Australia they did not succeed in getting any data, even if they gave the general data in the 2009 survey.

In Table 7 are gathered the specific additional information from each country together with the names of the contributors.

The more personal remarks from the contributors were:

Denmark: A growing private sector is not reflected in the data. They have at least as high a percentage of day surgery.

England: There have been several key initiatives over the years to improve the figures; financial necessity is now driving the change.

France: Barriers are surgeons, economics, facility design, information, and education.

Germany: Reimbursement problems.

Hungary: Problems are: Lack of appropriate physical structures, grey market, and lack of economic funds.

Netherlands: An important issue is safety and inspection of facilities. Research shows decreasing mortality and morbidity.

Norway: High percentage due to financial incentives.

Portugal: Government policy and strategic proposals from National Committee for Development of Day Surgery has improved the day surgery activity.

Scotland: Same as for England.

Spain: We need to develop more free standing units.

Sweden: Problems with data from private facilities.

Discussion

Data collection from many countries is very difficult. It is dependent on dedicated professionals having interest in the field more than on a systematic follow up from the national or regional authorities. Therefore the data must be considered “the best possible” in many countries not having a national database covering all health activities. Such a national database has been implemented in Denmark since 1977 and covering all hospital based activity since mid ninety-nine’s and is very valuable for statistical purpose [4]. The other Nordic countries have a similar structure.

The most valid result in this survey is the development within a country, where data collected from the same source for consecutive years give a reliable picture of the development.

When analyzing the data it seems that the most general conclusions are:

- Almost all countries still have an increase in the share of ambulatory surgery of the basket
- The share of total and planned operations depends on the organisation within the country
- There are even significant differences within a country
- Countries that had a low volume of ambulatory surgery (e.g. Portugal) have seen a remarkable increase – a result of the comparison between countries?
- The increase is mainly seen among the common procedures and not at “the cutting edge”
- There is still a large potential in many countries
- The organisation: Public/private has an important impact on the share of ambulatory surgery
- The reimbursement systems are referred to as important for the move from stationary to ambulatory surgery

Based on the experience with now almost 15 years of surveys conducted in setup of IAAS through contact persons in the member countries, I do believe that the process needs a revitalisation. I think that the following aspects should be taken into consideration:

- There is a need for a revision of the basket so that it better reflects the situation in the member countries.
- There is a mandatory need for definition and data collection within the countries – an EU or OECD task? Uniform data definitions are necessary – e.g. definitions used by IAAS
- There is a need for more systemized collection of data from the countries – in cooperation with EU or OECD?
- There are needs for national strategies for ambulatory surgery progress

There is no doubt that the present data collection from interested professionals within the member countries has been very valuable. In the period where this has been performed there has been substantially increase in the activity and of the awareness – also among politicians and other decision makers. Now there is a need to institutionalize the survey in a “super national” setup – e.g. EU or OECD.

Conclusion

It is of importance to follow the development of day surgery activity in the member countries of the IAAS and even in other countries. The short stay surgery is often a high quality of patient care and the utilisation of the sparse resources for health service indicates that the most cost/effective set of treating the patients should be chosen.

This survey shows that there is still room for improvement in many countries but also that a lot has happened since the latest survey two years ago.

The survey is an important tool for decision makers but it now needs to be professionalized in a setup in for instance EU or OECD.

This needs a decision in the high political level in Europe or worldwide.

References

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IAAS Survey on Ambulatory Surgery in the World 2011

Name of contributor:

Country or region:

Contact address:

Data source:

Completeness of data:

Total number of surgical procedures in your country/region:

Total number of planned surgical procedures in your country/region:

Total number of emergency surgical procedures in your country/region:

Total number of day surgery procedures in your country/region:

How is the day surgery organised in your country/region:

How is the day surgery reimbursed in your country/region:

Your coding System:

In your opinion, what is the reason why your country/region is doing well / not doing very well in comparison with other countries?:

Figure 2 Datasheet

Name of Procedure	ICD9CM Coding	NCSP Coding	Number of ambulatory cases	Number of inpatient cases
Cataract	13.1 – 13.7	CJB – CJE		
Squint	15.0 – 15.9	CEB – CEW		
Myringotomy with tube insertion	20.01	DCA 20		
Tonsillectomy	28.2 – 28.3	EMB 10 – 20		
Rhinoplasty	21.8	DJ, DL		
Broncho-Mediastinoscopy	33.22 – 33.24, 34.22	UGC, GEA		
Surgical removal of tooth	23.1	EBA 10		
Endoscopic female sterilisation	66.2	LGA		
Legal abortion	69.51, 69.01	LCH00, LCH03		
Dilatation and curettage of uterus	69.02, 69.09	LDA00, LDA10, LCA10, LCA13, MBA00, MBA03		
Hysterectomy (LAVH)	68.51	LCD11		
Repair of cysto- and rectocele	70.5	LEF		
Knee arthroscopy	80.26	NGA11		
Arthroscopic meniscus	80.6	NGD01, NGD11		
Removal of bone implants	78.6	NBU, NCU, NDU, NFU, NGU, NHU		
Repair of deform. on foot	77.51 – 77.59	NH		
Carpal tunnel release	04.43	NDM09, NDM19		
Baker cyst	83.39	NGM39		
Dupuytren's contracture	82.12	NDF02, NDF12		
Cruciate ligament repair	81.43, 81.45	NGE35, NGE36, NGE45, NGE46		
Disc operations	80.5	ABC		
Local excision of breast	85.21, 85.12	HAB00, HAB10, HAB40, HAB99		
Mastectomy	85.4	HAC		
Laparoscopic cholecystectomy	51.23	JKA21		
Laparoscopic antireflux	44.64 – 44.66	JBC01		
Haemorrhoidectomy	49.43 – 49.46	JHB		
Inguinal hernia repair	53.0 – 53.1	JAB		
Circumcision	64.0	KGH10, KGH80		
Orchidectomy + -pexi	62.3 – 62.5	KFH00, KFH10, KFC		
Male sterilisation	63.7	KFD43, KFD46		
TURP	60.2	KED22		
Colonoscopy w/wo biopsy	45.23, 45.25	UJF32, UJF35		
Removal of colon polyps	45.42	JFA15, JFA17		
Varicose veins	38.5	PHB10 – PHB14, PHD10 – PHD15		
Bilat: breast reduction	85.32	HAD30, HAD35		
Abdominoplasty	86.83	QBJ30		
Pilonidal cyst	86.21	QBE10		

Table 1 Percentage of day surgery procedures ENT, Eye and Jaw surgery 2009 with 2007 data in brackets.

	Myringotomy	Tonsillectomy	Rhinoplasty	Broncho-Mediastinoscopy	Cataract surgery	Squint Correction	Tooth Removal
Belgium	98 (95)	85 (89)	26 (20)	63 (44)	95 (91)	94 (90)	99 (97)
Denmark	75 (78)	37.5 (39)	62 (59)	79 (73)	99 (98)	84 (69)	95 (93)
England	87 (86)	30 (23)	28 (21)	21 (?)	97 (95)	92 (91)	95 (92)
Finland	98 (98)	66 (59)	62 (56)	16 (0)	99 (98)	91 (87)	91 (89)
France	96 (96)	79 (19)	13 (11)	22 (25)	93 (62)	33 (22)	84 (71)
Hong Kong	n.a. (n.a.)	n.a. (3)	n.a. (n.a.)	n.a. (n.a.)	n.a. (73)	n.a. (n.a.)	n.a. (n.a.)
Hungary	n.a. (n.a.)	n.a. (n.a.)	n.a. (n.a.)	n.a. (n.a.)	29 (n.a.)	n.a. (n.a.)	n.a. (n.a.)
Italy	n.a. (n.a.)	37 (n.a.)	28 (n.a.)	19 (n.a.)	88 (84)	40 (n.a.)	78 (n.a.)
Veneto reg	92 (91)	84 (74)	40 (4,3)	73 (16)	99 (98)	83 (74)	99 (n.a.)
Netherlands	0,1 * (98)	32 (66)	33 (27)	80 (68)	99 (97)	97 (96)	92 (91)
Norway	99 (85)	94 (37)	88 (61)	3 (8,5)	96 (97)	94 (57)	73 (31)
Portugal	54 (36)	33 (19)	13 (8)	n.a. (n.a.)	91 (63)	53 (49)	68 (54)
Scotland	96 (76)	23 (10)	30 (19)	n.a. (62)	95 (91)	90 (84)	97 (91)
Spain	61	35	54	11	96	59	80
Sweden	93 (93)	1* (26)	55 (38)	60 (54)	99 (98)	86 (89)	95 (96)
USA	n.a. (98)	n.a. (90)	n.a. (95)	n.a. (36)	n.a. (99)	n.a. (84)	n.a. (n.a.)

Table 2 Percentage of day surgery procedures for gynaecology 2009 with 2007 data in brackets.

	Endoscopic Female Sterilisation	Legal abortion	Dilatation + curettage	LAVH	Cysto/rectocele
Belgium	74 (71)	-----	86 (83)*	0,2 (0,2)	5 (3,5)
Denmark	91 (91)	98 (98)	94 (93)	1,6 (1,5)	46 (21)
England	85 (82)	63 (28)	85 (83)	0 (0,23)	0 (?)
Finland	86 (85)	90 (92)	66 (66)	1 (1,6)	8 (5,1)
France	57 (36)	87 (80)	63 (56)	0 (0,1)	7 (4,6)
Hongkong	n.a. (n.a.)	n.a. (n.a.)	n.a. (n.a.)	n.a. (n.a.)	n.a. (n.a.)
Hungary	n.a. (n.a.)	66 (n.a)	65 (n.a.)	n.a. (na.)	n.a. (n.a)
Italy	46 (n.a.)	92 (70)	49 (n.a.)	3 (n.a.)	2 (n.a.)
Veneto reg.	76 (69)	97 (95)	62 (62)	0 (0,26)	8 (70)
Netherlands	94 (92)	86* (85)	70 (69)	0 (0,05)	1 (0,55)
Norway	87 (15)	96 (95)	94 (57)	74* (0,87)	91 (5,29)
Portugal	43 (26)	62 (46)	34 (31)	2 (0)	12 (0,56)
Scotland	n.a. (83)	n.a. (78)	85 (75)	0,5 (0,08)	1,6 (1,94)
Spain	71	37	25	0,2	1,5
Sweden	78 (80)	91 (79)	68 (69)	0 (0)	16 (12)
USA	n.a. (92)	n.a. (14)	n.a. (86)	n.a. (27)	n.a. (32)

Table 3 Percentage of day surgery procedures for orthopaedics 2009 with 2007 data in brackets.

	Knee Arthroscopy	Arthroscopic Meniscectomy	Removal of bone Implants	Carpal tunnel release	Baker cyst excision	Dupuytren contracture correction	Cruciate ligament repair	Disc surgery
Belgium	63 (63)	90 (88)	82 (78)	99 (94)	41 (40)	81 (77)	13 (15)	3 (2,3)
Denmark	95 (93)	96 (93)	89 (87)	93 (89)	93 (82)	90 (93)	87 (77)	1,8 (2,4)
England	80 (?)	81 (68)	59 (55)	95 (91)	n.a. (?)	72 (62)	15 (10)	2 (1,24)
Finland	83 (82)	92 (90)	71 (68)	91 (90)	79 (77)	84 (80)	69 (65)	5 (3,9)
France	57 (43)	74 (55)	56 (53)	89 (87)	45 (41)	63 (63)	0,3 (0,2)	0,1 (0,1)
Hong Kong	n.a. (6)	n.a. (5)	n.a. (n.a.)	n.a. (72)	n.a. (6)	n.a. (n.a.)	n.a. (n.a.)	n.a. (n.a.)
Hungary	37 (n.a.)	n.a. (n.a.)	16 (n.a.)	n.a. (n.a.)	n.a. (n.a.)	n.a. (n.a.)	n.a. (n.a.)	n.a. (0)
Italy	51 (74)	58 (n.a.)	53 (55)	86 (90)	70 (n.a.)	76 (n.a.)	10 (n.a.)	14 (n.a.)
Veneto reg.	78 (73)	89 (73)	61 (78)	99 (98)	83 (83)	95 (98)	33 (n.a.)	14 (9,5)
Netherlands	92 (94)	93 (94)	69 (69)	94 (97)	71 (67)	90 (86)	5 (5,82)	4 (2,13)
Norway	89 (73)	75 (86)	94 (49)	92 (88)	78 (78)	91 (39)	79 (32)	81* (3,34)
Portugal	18 (6,33)	19 (3,1)	37 (15)	75 (58)	59 (49)	41 (28)	7 (0,57)	7 (6,13)
Scotland	84* (68)	* (72)	70 (49)	97 (89)	n.a. (n.a.)	71 (42)	36 (59)	1,3 (0,48)
Spain	49	46	43	90	67	59	9	2
Sweden	87 (87)	97 (94)	67 (71)	89 (89)	91 (88)	63 (68)	n.a. (n.a.)	3 (1)
USA	n.a. (95)	n.a. (98)	n.a. (75)	n.a. (98)	n.a. (61)	n.a. (99)	n.a. (90)	n.a. (8)

Table 4 Percentage of day surgery procedures for general surgery 2009 with 2007 data in brackets.

	Local Breast excision	Mastectomy	Lap. Chol.	Antireflux surgery	Haemorrhoidectomy	Inguinal Hernia repair	Colonoscopy	Colon Polyps removal	Pilonoidal Cyst excision	Gastric banding
Belgium	73 (62)	0,5 (2,3)	3 (1,9)	0,6 (0,17)	44 (36)	32 (32)	73 (73)	81 (77)	45 (40)	n.a. (2,4)
Denmark	42 (38)	12 (9)	58 (43)	15 (11)	91 (91)	81 (79)	96 (95)	97 (97)	92 (91)	3,6 (0,8)
England	42 (52)	3 (2,7)	20 (14,5)	4 (4,6)	56 (45)	59 (57)	92 (88)	93 (?)	58 (31)	n.a. (5,1)
Finland	33 (29)	4 (2,5)	28 (25)	7 (8,3)	50 (47)	60 (58)	n.a. (?)	n.a. (?)	66 (71)	n.a. (0)
France	25 (15)	7 (5,5)	1,1 (0,4)	0,2 (0,2)	8,5 (6,2)	20 (12)	78 (76)	81 (79)	19 (13)	n.a. (0,7)
Hong Kong	n.a. (54)	n.a. (0,01)	n.a.(0,05)	n.a. (0)	n.a. (27)	n.a. (55)	n.a. (68)	n.a. (n.a.)	n.a. (n.a.)	n.a. (n.a.)
Hungary	n.a.(n.a.)	n.a.(n.a.)	n.a. (n.a.)	n.a. (n.a.)	28 (n.a.)	21 (n.a.)	n.a. (0)	n.a. (0)	n.a. (n.a.)	n.a. (n.a.)
Italy	70 (n.a.)	96*(n.a.)	5 (1,36)	1,5 (n.a.)	46 (n.a.)	62 (58)	n.a. (n.a.)	62 (n.a.)	64 (n.a.)	n.a. (n.a.)
Veneto reg.	90 (82)	0,1 (15)	0,6(0,69)	0 (0)	86 (62)	86 (80)	97 (19)	97 (67)	93 (90)	n.a. (n.a.)
Netherlands	41 (39)	49*(1,79)	6 (4,4)	2,5 (0)	78 (69)	67 (63)	91 (90)	86 (81)	91 (14)	n.a.(0,14)
Norway	94 (43)	81* (15)	88 (20)	93* (4,35)	89 (62)	92 (64)	9* (n.a.)	8* (2,45)	96 (78)	n.a. (0)
Portugal	39 (39)	8 (1,82)	15 (1,11)	5 (0,26)	37 (19)	38 (10)	n.a. (n.a.)	Na. (n.a.)	59 (46)	n.a. (0)
Scotland	18 (73)	3,8 (2,34)	13 (2,95)	4,9 (0)	49 (68)	61 (34)	n.a. (87)	n.a. (90)	59 (17)	n.a. (n.a.)
Spain	39	1	5	0,1	37	43	47	53	73	n.a.
Sweden	45 (42)	8 (8)	17 (16)	9 (3)	93 (90)	73 (71)	87 (84)	88 (88)	96 (94)	n.a. (0)
USA	n.a. (98)	n.a. (69)	n.a. (53)	n.a. (35)	n.a. (82)	n.a. (86)	n.a. (88)	n.a. (78)	n.a. (91)	n.a. (19)

Table 5 Percentage of day surgery procedures for Urology, Plastic Surgery and Vascular Surgery 2009 with 2007 data in brackets.

	Circumcision	Testis surgery	TURP	Breast reduction	Abdominoplasty	Varicose veins surgery
Belgium	96 (92)	56 (49)	0,6 (0,63)	1,5 (0,84)	5 (4,4)	81 (79)
Denmark	94 (95)	77 (69)	7,4 (2,5)	6,7 (5,3)	5,1 (6,3)	98 (95)
England	83 (80)	79 (72)	1 (2,4)	n.a. (n.a.)	n.a. (n.a.)	82 (68)
Finland	85 (81)	48 (43)	2 (2)	11 (11)	10 (13)	78 (74)
France	98 (88)	39 (35)	0,1 (0,1)	0,5 (0,6)	2,6 (3,9)	54 (27)
Hong Kong	n.a. (79)	n.a. (23)	n.a. (0,001)	n.a. (n.a.)	n.a. (n.a.)	n.a. (30)
Hungary	n.a. (0)	n.a. (0)	72 (0)	n.a. (0)	n.a. (n.a.)	23 (n.a.)
Italy	73 (n.a.)	35 (n.a.)	10 (n.a.)	4 (n.a.)	20 (n.a.)	77 (94)
Veneto reg.	82 (68)	49 (50)	0,2 (3,5)	0 (22)	19 (16)	93 (88)
Netherlands	95 (94)	64 (63)	0,6 (0,89)	0,6 (0,29)	n.a. (7,28)	89 (88)
Norway	98 (84)	94 (11)	89*1 (,66)	26 (68)	28 (47)	93 (85)
Portugal	75 (59)	52 (30)	14 (0)	8 (1,57)	16 (21)	40 (15)
Scotland	88 (75)	85 (48)	2,4 (1)	n.a. (0)	n.a. (2,55)	67 (49)
Spain	85	28	1,5	4	13	54
Sweden	91 (90)	52 (49)	37* (1,57)	9 (4,47)	3 (8,07)	89 (88)
USA	n.a. (91)	n.a. (70)	n.a. (33)	n.a. (88)	n.a. (36)	n.a. (94)

Table 6 Day surgery as percentage of all surgery, planned surgery, and of the procedures in the basket compared to the data in the survey from 2009.

	% of all surgery	% of elective surgery	% of basket
Australia	N.a.	N.a.	N.a. was 74
Belgium	N.a. (was 43 %)	N.a.	78% was 31
Denmark	74%	89%	86% was 79
England	52%	62%	77% was 62
Finland	N.a.	63%	65% was 62
France	36%	N.a.	45% was 45
Germany	43,5%	N.a.	N.a. was 60
Hungary	15,5%	22%	N.a .
Italy	32%	64%	60% was 41
Veneto Re- gion	40 %	96 %	87 % was 69
Netherlands	53%	N.a.	68% was 70
Norway	50%	64%	88% was 68
Portugal	35%	43%	55% was 18
Scotland	37%	68%	74% was 62
Spain	33%	87%	63% was 54
Sweden	69%	80%	73% was 66
USA	N.a.	N.a.	N.a. was 85

Table 7 Specific details from the questionnaire and names of the contributors.

Contributor	Completeness of data	Coding system	Data source
Belgium Paul Vercruyssen	Almost 100%	Health insurance codes	National health insurance
Denmark Claus Toftgaard	100% public	NCSP	National patient register
England Ian Jackson	Reliable	N.a.	Hospital episode statistics
Finland Kristiina Mattila Antti Haavisto	Reliable	NCSP	National Institute for Health
France Corinne Vons	N.a.	PMSI	French Health Ministry
Germany Jost Brökelmann	N.a.	OPS	BAO
Hungary Muhammed Gamal	N.a.	N.a.	Healthcare insurance company
Italy Ugo Baccaglioni	N.a.	ICD9CM	Ministry of Health
Veneto Region Ugo Baccaglioni	N.a.	ICD9CM	Azienda Ospedaliere di Padova
Netherlands Jan Eshuis	77/97 public hospitals	ICD9CM.	Landelijke Registratie Medische Ziekenhuis statistiek
Norway Directorate of health	100%	NCSP	National patient register
Portugal Paulo Lemos	N.a.	ICD9CM	APCA national survey
Scotland Sebastian Gough	99%	OPCS 4,5	Scottish morbidity records
Spain Fernando Docobo-Durantez	N.a.	N.a.	Ministry of health
Sweden Metha Brattwall	Reliable	NCSP	National patient register

