

# NCPA/HPO Annual Report 2023

General Anaesthetics, Neuraxial blocks  
and Regional blocks, Administered in  
Public Hospitals in Ireland in 2023  
as captured in HIPE

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December 2024

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# Introduction

The NCPA/HPO Annual Report for 2023 presents the most recent data on anaesthesia activity in our public healthcare system. It is the 11th consecutive Annual Report compiled from data provided by the Healthcare Pricing Office (HPO). The NCPA acknowledges the ongoing commitment of the HPO in the publication of this important document.

This year's report preserves the familiar structure of previous editions, focusing on the administration of general anaesthetics, neuraxial blocks, and regional blocks in Ireland's public hospitals. It includes data from 2023 alongside comparative statistics from the prior four years, enabling trend analysis and identification of key patterns.

The report presents detailed patient demographics such as age, gender, ASA status, urgency of procedures, and procedure classification using the Australian Classification of Health Interventions (ACHI).

The NCPA/HPO Annual Report also presents an occasional data section, varying from year to year, highlighting new or interesting aspects of the data collected. This year's report looks at chronic pain procedures performed in public hospitals, offering new insights into this important and expanding area of patient care, and to mark ten years, 2013 – 2023, of reporting on general anaesthetic activity in public hospitals in Ireland we also include a snapshot of four selected data sets demonstrating some of the changes that have occurred during this period.

Furthermore, in collaboration with Organ Donation and Transplant Ireland (ODTI), the report includes supplementary data on patients identified with ASA 6 status – those diagnosed with brain stem death whose organs are retrieved for transplantation. The data provided outlines both deceased organ donors with ASA 6 status and “non-beating heart” donors.

All previous editions of the Annual Report are available online, providing a valuable resource for tracking trends in anaesthesia practices over time.

As with previous Annual Reports, the authors acknowledge that this Annual Report describes only part of the work of anaesthesiologists.

## Part 1:

## Principal Data

Table 1 & Figure 1 describe the number and type of anaesthetic administered in 2019 – 2023 as reported to HIPE

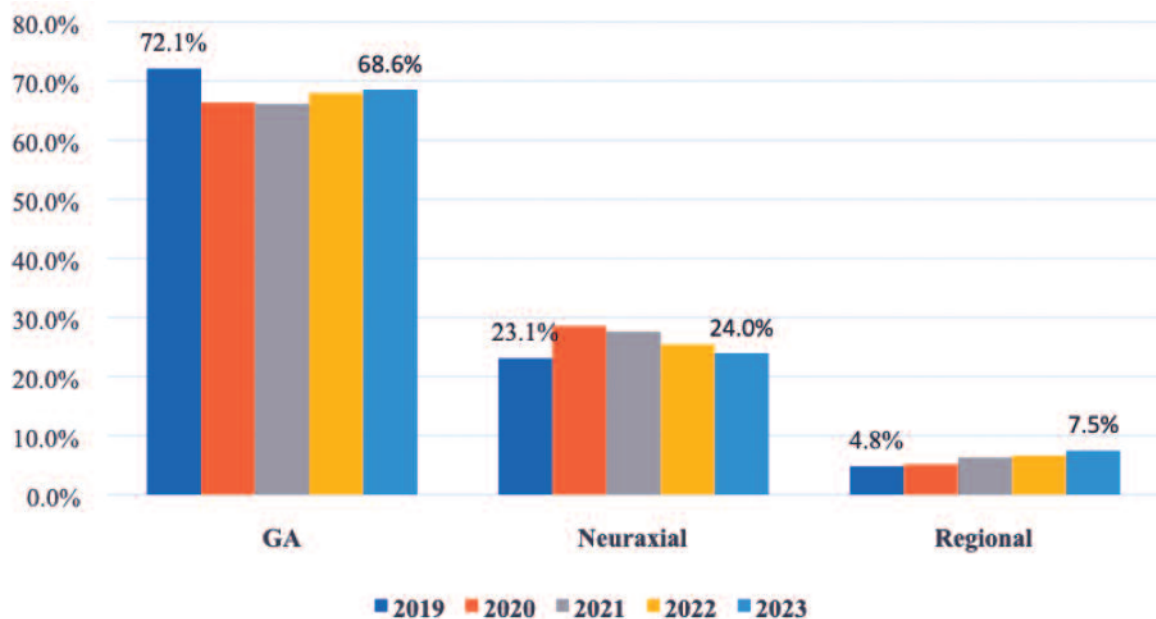
Table 1

Number of anaesthetics administered in 2019- 2023 by anaesthetic type

Year	2019	2020	2021	2022	2023
Anaesthetic type	Anaesthetic Count				
General	165,913	124,534	136,000	146,282	160,854
Neuraxial Block	53,157	53,555	56,774	54,769	56,212
Regional	11,076	9,644	12,911	14,279	17,516
<b>TOTAL *</b>	<b>230,146</b>	<b>187,733</b>	<b>205,685</b>	<b>215,330</b>	<b>234,582</b>

Fig 1

Percent of anaesthetics administered in 2019 - 2023 by anaesthetic type



\*The total number of anaesthetics is the sum of all three types of anaesthetics administered. The anaesthetic count (Table 1) exceeds the discharge count (Table 2) because some patients had more than one anaesthetic at the same time (e.g. GA and Neuraxial block) or more than one anaesthetic during the same admission.

**Table 2 & Figure 2 describe the number of patient discharges reporting an anaesthetic procedure(s) in 2019 – 2023 by gender as reported to HIPE**

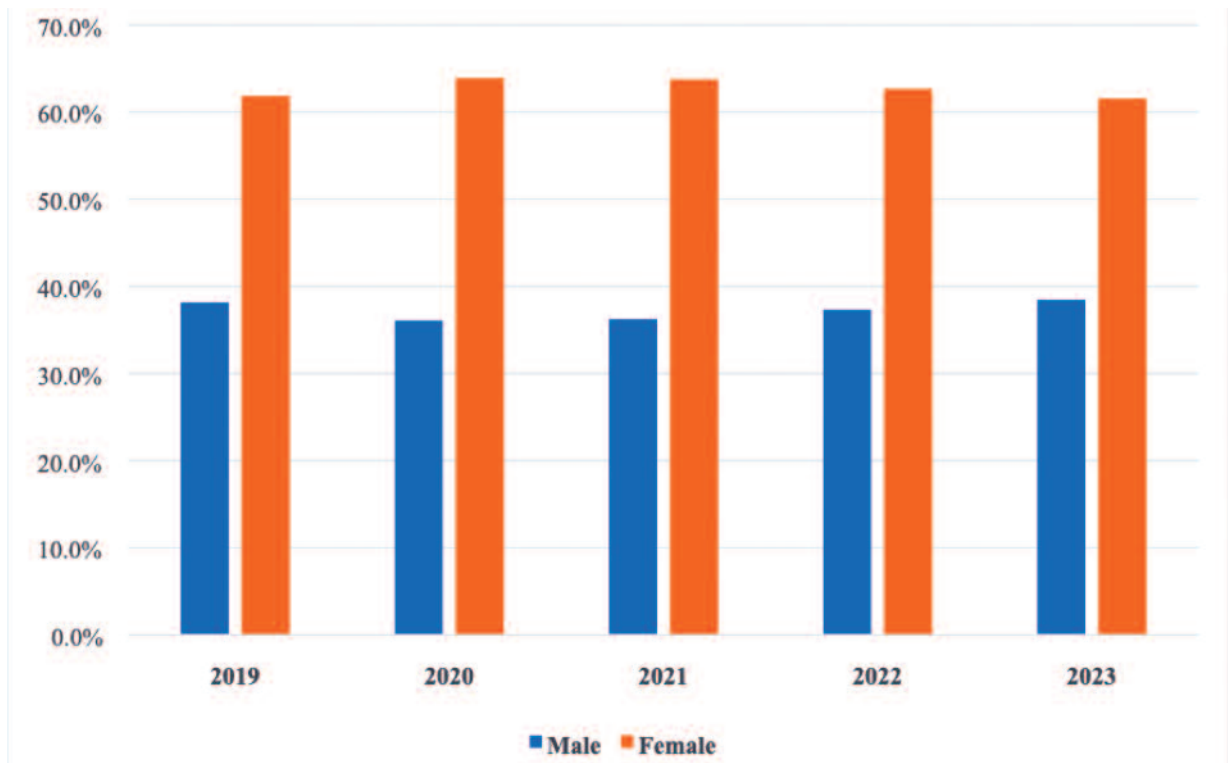
**Table 2**

**Number of patient discharges reporting an anaesthetic procedure(s) in 2019 - 2023 by gender**

Year	2019	2020	2021	2022	2023
Gender	Discharge Count				
Male	82,976	63,569	69,794	74,987	83,597
Female	134,481	112,549	122,734	125,910	135,201
<b>TOTAL</b>	<b>217,457</b>	<b>176,118</b>	<b>192,528</b>	<b>200,897</b>	<b>218,798</b>

**Fig 2**

**Percent of patient discharges reporting an anaesthetic procedure(s) in 2019 - 2023 by gender**



**Table 3 & Figure 3 describe the number of anaesthetics administered in 2019 – 2023 by patient ASA status as reported to HIPE**

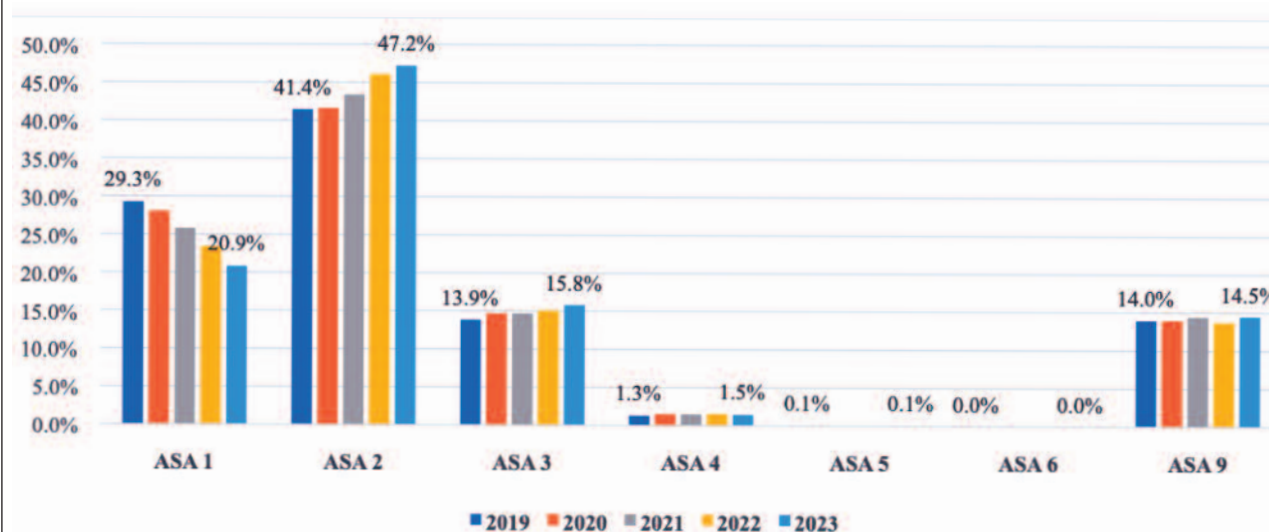
**Table 3**

**Number of anaesthetics administered in 2019 – 2023 by patient ASA status**

Year		2019	2020	2021	2022	2023
#ASA						
Score	Patient status	Anaesthetic Count				
1	Normal healthy patient	67,358	52,697	53,091	50,413	48,930
2	Mild systemic disease	95,378	78,094	89,315	99,202	110,756
3	Severe systemic disease limiting activity	31,928	27,588	30,238	32,439	37,129
4	Severe systemic disease posing a constant threat to life	3,079	2,898	3,144	3,446	3,497
5	Moribund patient not expected to survive longer than 24 hrs without surgery	241	200	220	211	224
6	Brain stem death and organ donation for transplant	0	0	0	0	0
9	No documentation on ASA status	32,162	26,256	29,677	29,619	34,046
<b>TOTAL</b>		<b>230,146</b>	<b>187,733</b>	<b>205,685</b>	<b>215,330</b>	<b>234,582</b>

**Fig 3**

**Percent of anaesthetics administered in 2019 - 2023 by patient ASA status**



#ASA scores -This information must be documented on the anaesthetic form before assigning these codes. Where there is no documentation of ASA score or the emergency modifier is not indicated, filler digits 9 should be assigned. Cells with discharges between one and five inclusive are not reported. In the table above such cells have been replaced by ~. Where further suppression is necessary to ensure that such cells are not disclosed it is necessary to suppress the cell with the next lowest discharges with \*.

**Table 4 & Figure 4 describe the number of anaesthetics administered in 2019-2023 by urgency of procedure as reported to HIPE**

**Table 4**

**Number of anaesthetics administered in 2019 – 2023 by urgency of procedure**

Year	2019	2020	2021	2022	2023
<b>Anaesthetic Count</b>					
Emergency	33,650	33,394	37,655	38,606	39,591
Non-emergency or not known	196,496	154,339	168,030	176,724	194,991
<b>TOTAL</b>	<b>230,146</b>	<b>187,733</b>	<b>205,685</b>	<b>215,330</b>	<b>234,582</b>

**Fig 4**

**Percent of anaesthetics administered in 2019 - 2023 by urgency of procedure**

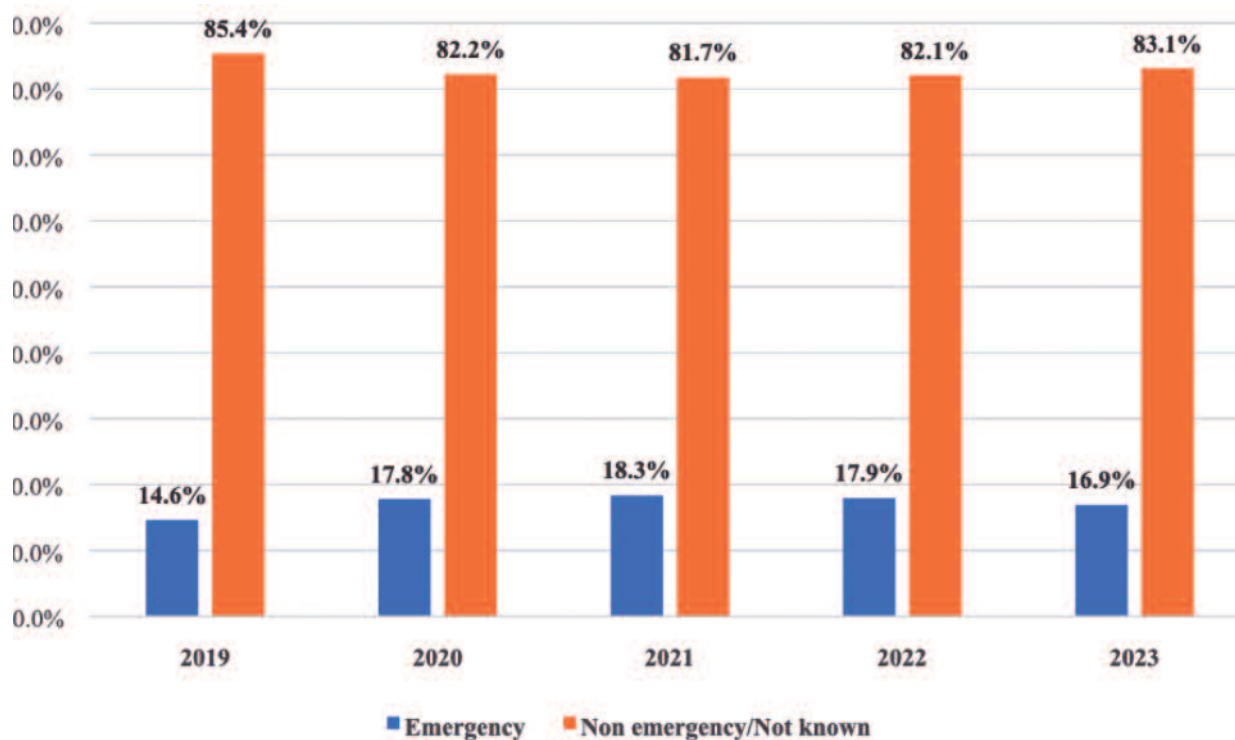


Table 5 & Figure 5 describe the number of patient discharges reporting an anaesthetic procedure(s) in 2019 – 2023 by age as reported to HIPE

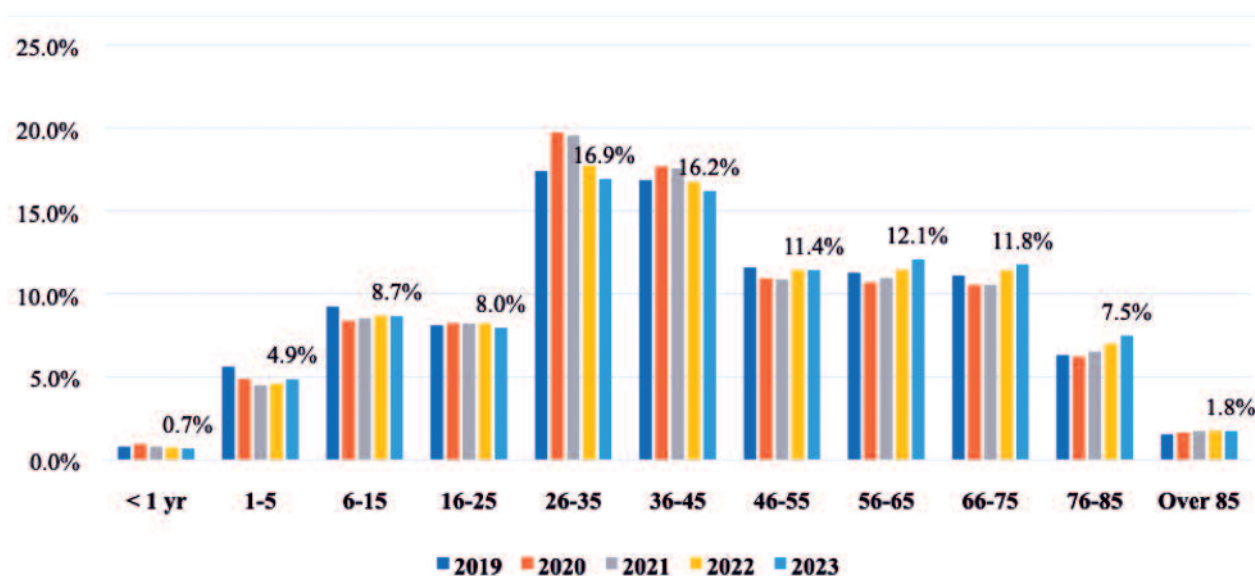
Table 5

Number of patient discharges reporting an anaesthetic procedure(s) in 2019 - 2023 by age

Year	2019	2020	2021	2022	2023
Age categories (yrs)	Discharge Count				
Less than 1	1,775	1,696	1,574	1,529	1,554
1 – 5	12,269	8,597	8,695	9,270	10,666
6 – 15	20,120	14,776	16,473	17,508	18,992
16 – 25	17,649	14,516	15,819	16,545	17,439
26 – 35	37,847	34,750	37,664	35,666	37,036
36 – 45	36,658	31,157	33,837	33,641	35,487
46 – 55	25,222	19,277	20,982	23,031	25,048
56 – 65	24,561	18,844	21,143	23,035	26,456
66 – 75	24,182	18,598	20,360	22,968	25,804
76 – 85	13,761	10,977	12,598	14,108	16,438
Over 85	3,413	2,930	3,383	3,596	3,878
<b>TOTAL</b>	<b>217,457</b>	<b>176,118</b>	<b>192,528</b>	<b>200,897</b>	<b>218,798</b>

Fig 5

Percent of patient discharges reporting an anaesthetic procedure(s) in 2019 - 2023 by age



**Table 6 describes the number of patient discharges reporting an anaesthetic procedure(s) in 2023 by age and hospital group as reported to HIPE**

<b>Table 6</b> <b>Number of patient discharges reporting an anaesthetic procedure(s) in 2023 by age and hospital group</b> <b>Discharge count by age and hospital group</b>							
Age (years)	Ireland East	RCSI	Dublin Midlands	South S/West	UL Hospital Group	Saolta	Children's Group
Less than 1	~	0	0	63	15	17	1,458
1 – 5	*	280	482	1,883	492	1,283	5,907
6 – 15	1,064	988	1,080	3,694	1,354	2,580	8,232
16 – 25	3,454	3,132	2,821	3,612	1,329	2,479	612
26 – 35	8,392	7,702	6,170	6,917	2,719	5,136	0
36 – 45	8,317	6,833	5,827	6,845	2,682	4,983	0
46 – 55	6,172	4,005	3,698	5,473	2,182	3,518	0
56 – 65	7,176	3,498	3,684	6,099	2,032	3,967	0
66 – 75	6,984	3,023	3,484	5,816	2,099	4,398	0
76 – 85	4,171	2,071	2,108	3,757	1,320	3,011	0
Over 85	966	523	463	896	286	744	0
Sub totals	<b>47,036</b>	<b>32,055</b>	<b>29,817</b>	<b>45,055</b>	<b>16,510</b>	<b>32,116</b>	<b>16,209</b>
<b>Total</b>							<b>218,798</b>

The full list of hospitals in each hospital group is given in Appendix 1

For reporting purposes, discharges aged 17 years and older from Tallaght University Hospital are included in the Dublin Midlands Hospital Group, while discharges aged less than 17 years from Tallaght University Hospital are included in the Children's Hospital Group.

**Table 7 describes the number of anaesthetics administered in 2019 - 2023 by the Australian Classification of Health Interventions (ACHI) as reported to HIPE**

**Table 7**

**Table 7 describes the number of anaesthetics administered in 2019 – 2023 by the Australian Classification of Health Interventions (ACHI) as reported to HIPE**

Intervention Chapter	Anaesthetic Count				
	Year 2019	Year 2020	Year 2021	Year 2022	Year 2023
1. Procedures on the nervous system	5,321	4,967	5,173	5,015	5,767
2. Procedures on endocrine system	1,325	1,004	1,047	1,011	1,108
3. Procedures on eye and adnexa	9,819	7,113	8,736	10,025	12,269
4. Procedures on ear and mastoid process	4,073	2,447	2,149	2,657	3,363
5. Procedures on nose, mouth and pharynx	8,036	5,087	5,258	6,200	8,023
6. Dental services	4,752	2,714	3,574	4,296	4,691
7. Procedures on respiratory system	4,422	3,213	3,644	3,905	4,169
8. Procedures on cardiovascular system	7,755	6,137	6,025	6,410	7,018
9. Procedures on blood and blood forming organs	1,121	920	1,041	1,057	1,069
<b>10. Procedures on digestive system</b>	<b>35,215</b>	<b>27,715</b>	<b>30,771</b>	<b>31,766</b>	<b>34,464</b>
11. Procedures on urinary system	10,452	8,567	9,064	9,313	10,938
12. Procedures on male genital organs	6,709	4,996	5,540	6,145	6,480
<b>13. Gynaecological procedures</b>	<b>25,054</b>	<b>18,916</b>	<b>19,874</b>	<b>21,997</b>	<b>23,278</b>
<b>14. Obstetric procedures</b>	<b>36,958</b>	<b>38,466</b>	<b>41,445</b>	<b>38,335</b>	<b>38,728</b>
<b>15. Procedures on musculoskeletal system</b>	<b>44,807</b>	<b>37,273</b>	<b>41,699</b>	<b>45,357</b>	<b>49,287</b>
16. Dermatological and plastic procedures	11,738	8,670	9,642	10,257	11,484
17. Procedures on breast	5,651	3,727	4,777	5,530	5,846
18. Radiation oncology procedures	605	541	581	521	577
19. Non-invasive, cognitive and other interventions not elsewhere classified	3,240	2,725	2,809	2,594	2,997
20. Imaging services	1,843	1,399	1,632	1,826	1,826
No procedure on same date as anaesthetic procedure	1,250	1,136	1,204	1,113	1,200
<b>TOTAL</b>	<b>230,146</b>	<b>187,733</b>	<b>205,685</b>	<b>215,330</b>	<b>234,582</b>

**Table 8 describes the number of patient discharges reporting an anaesthetic procedure(s) in 2023 by admission type and hospital group as reported to HIPE**

**Table 8**

**Number of patient discharges reporting an anaesthetic procedure(s) in 2023  
by admission type and hospital group as reported to HIPE**

**Discharge count by admission type and hospital group**

	<b>Ireland East</b>	<b>RCSI</b>	<b>Dublin Midlands</b>	<b>South S/West</b>	<b>UL Hospital Group</b>	<b>Saolta</b>	<b>Children's Group</b>	<b>TOTAL</b>
<b>Day cases</b>	16,070 (34.2%)	7,852 (24.5%)	8,880 (29.8%)	16,848 (37.4%)	6,192 (37.5%)	10,083 (31.4%)	9,557 (59.0%)	<b>75,482 (34.5%)</b>
<b>In Patients</b>								
<b>Elective</b>	13,386 (28.5%)	6,171 (19.3%)	6,451 (21.6%)	11,056 (24.5%)	3,906 (23.6%)	7,631 (23.8%)	3,080 (19.0%)	<b>51,681 (23.6%)</b>
<b>Emergency</b>	8,368 (17.8%)	8,074 (25.2%)	7,795 (26.1%)	9,410 (20.9%)	3,241 (19.6%)	8,180 (25.5%)	3,572 (22.0%)	<b>48,640 (22.2%)</b>
<b>Maternity</b>	9,212 (19.6%)	9,958 (31.1%)	6,691 (22.4%)	7,741 (17.2%)	3,171 (19.2%)	6,222 (19.4%)	0 (0%)	<b>42,995 (19.7%)</b>
<b>Totals</b>	<b>47,036</b>	<b>32,055</b>	<b>29,817</b>	<b>45,055</b>	<b>16,510</b>	<b>32,116</b>	<b>16,209</b>	<b>218,798 (100.0%)</b>

**Note:** The Admission Type is the category of admission relating to the episode of care and is downloaded directly from the patient administration system.

## Part 2:

# Supplementary data

### ASA 6 Patient status

ASA 6 denotes a patient with a diagnosis of brain stem death who is donating organs for transplant.

Data from ODTI\* indicate that 71 patients in 2023 donated organs following a diagnosis of brain stem death.

Deceased Organ Donors					
Year	2019	2020	2021	2022	2023
Beating heart	78	56	57	73	71
Non beating heart	7	7	8	13	24
<b>TOTAL</b>	<b>85</b>	<b>63</b>	<b>65</b>	<b>86</b>	<b>95</b>
Reproduced with kind permission of Organ Donation and Transplant Ireland.					

Organ Donation and Transplant Ireland has been delegated the regulatory functions assigned to the Health Service Executive (HSE) in Statutory Instrument (SI) 325 (2012), European Union (Quality and Safety of Human Organs Intended for Transplantation) Regulations 2012.

This annual ODTI report has been produced in compliance with part 5, SI 325 (2012)

ODTI\* Organ Donation and Transplant Ireland  
 2nd Floor, Temple Theatre, Hardwicke Place, Temple Street, Dublin 1.  
 Email: [odti@hse.ie](mailto:odti@hse.ie)

## Occasional data

The Occasional Data section gives details of the number and type of procedure carried out for the management of chronic pain in public hospitals in Ireland in 2023 and it is the first occasion on which this type of data has been included in an Annual Report.

The most recent information on staffing levels in the chronic pain management services indicates a total of 27 chronic pain management consultants working in 5 pain management programmes nationally, providing a wide range of procedures including advanced neuromodulation and intrathecal pump therapies with the support NCHD's, and colleagues in the nursing, physiotherapy and psychology professions. (1)

Table A overleaf gives the number of procedures for chronic pain management carried out in 2023 according to the Procedure Blocks contained in the Australian Classification for Health Interventions (ACHI) Pain Management Procedures ICD-10-AM 10th edition.

The full list of chronic pain procedures is available on request from the Healthcare Pricing Office, [HIPE.coding@hse.ie](mailto:HIPE.coding@hse.ie)

A total of 49,349 procedures for chronic pain management were carried out in 2023 which were spread over 18 ACHI Procedure Blocks.

The vast majority of these, 93.9%, were carried out as day case procedures.

The procedure most frequently performed was the ACHI Procedure Block category "1552: Administration of agent into other musculoskeletal sites" representing 59.0% of all procedures carried out. Full details of Procedure Block 1552 are given below.

### ACHI Procedure Block 1552; Administration of agent into other musculoskeletal sites

47900-01 Administration of agent into bone cyst

18360-01 Administration of agent into soft tissue, not elsewhere classified Q3099

Includes: botulinum toxin/Steroid

injection of agent for local effect into:

ligament, muscle, soft tissue not otherwise specified, tendon

Note: Performed for: cervical dystonia (spasmodic torticollis), chronic migraine, dynamic equinus foot deformity (equinovarus/valgus) due to spasticity, hemifacial spasm, sialorrhoea, spasticity (focal)

Excludes: administration of agent for systemic effect (see block [1920])

**Table A****ACHI Procedure & Description Blocks**

	In-Patient	Day case	TOTAL
1552: Administration of agent into other musculoskeletal sites	908	28,231	29,139
63: Administration of anaesthetic agent around other peripheral nerve	549	5,759	6,308
31: Application, insertion or removal procedures on vertebra or intervertebral disc	79	3,615	3,694
32: Epidural injection	152	2,972	3,124
72: Percutaneous neurotomy of other peripheral nerve	32	2,153	2,185
34: Caudal injection	65	1,961	2,026
37: Spinal infusion	1,044	6	1,050
64: Administration of neurolytic agent into other peripheral nerve	31	560	591
65: Administration of therapeutic agent around sympathetic nervous system	28	330	358
62: Administration of agent into posterior primary rami of spinal nerve	~	312	312
60: Administration of anaesthetic agent around cranial nerve	17	194	211
36: Spinal injection	9	44	135
33: Epidural infusion	24	88	112
71: Percutaneous neurotomy of primary posterior rami of spinal nerve	0	51	51
66: Administration of neurolytic agent into sympathetic nervous system	6	21	27
35: Caudal infusion	~	19	19
61: Administration of neurolytic agent into cranial nerve	~	7	7
78: Destruction of nerve	0	0	0
<b>TOTAL</b>	<b>3,026</b>	<b>46,323</b>	<b>49,349</b>

**Notes on the data above**

The above is a Count of Procedure Blocks with specified pain management code reported to HIPE by In-patient and day case for 2023. In-patient and day case discharges are reported only; ED and out-patient attendances are not recorded on HIPE.

HIPE data is based on hospitalisations which may include multiple admissions for the same patient. Therefore, it is not possible to use HIPE to examine certain parameters such as the number of hospital encounters per patient or to estimate incidence or prevalence of disease.

Each HIPE record can have up to 20 procedures listed. If a single episode of care contains a procedure from more than one of the Procedure Blocks above, it will be counted in each block. If an episode of care contains more than one procedure from the same Procedure Block this is counted once within that Procedure Block. This is an aggregate count of Procedure Blocks

Diagnosis and procedures are coded using ICD-10-AM/ACHI/ACS10th edition. ICD-10-AM is the international statistical classification of diseases and related health problems, 10th revision, Australian modification. The ICD-10-AM component is based on the World Health Organisation (WHO) ICD-10. ICD-10-AM is used in conjunction with the Australian Classification of Health Interventions (ACHI), and the Australian Coding Standards (ACS) to reflect an accurate health episode of care. For reasons of confidentiality cells with between 1 and 5 discharges are suppressed, with ~. Where further suppression is necessary to prevent cells with values between 1 and 5 being disclosed, these cells are replaced with \*. Figures for ~ or \* have not been counted in Table A

**Table B** sets out the number of day case pain management procedure blocks carried out in 2023 according to the discharge consultant specialty.

The discharge specialties of Pain Management and Anaesthetics together account for 42.2% of all discharges and it is reasonable to assume that anaesthetists are the discharge consultants in both cases. It is likely however that anaesthetists play a much larger role in the delivery of chronic pain management since specialties such as Dermatology, Cardiology, Rheumatology, are likely to refer cases to them. Not all anaesthetists who have chronic pain management commitments necessarily have hospital admission facilities.

The second largest discharge specialty is Orthopaedics with 37.8%. In the past orthopaedic surgeons frequently administered epidural injections for relief of chronic back pain but we cannot say if this is current practice.

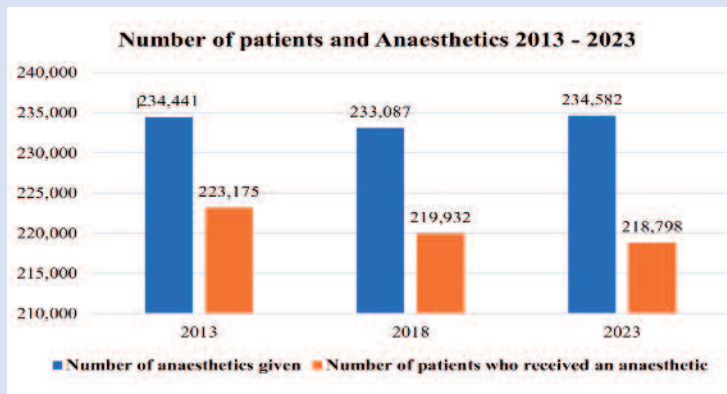
Specialty is the specialty of the discharge consultant on the episode of care. HIPE does not collect a specialty per procedure

**Table B**  
**Count of Procedure Blocks with a specified pain management code reported to HIPE for day cases in 2023, disaggregated by discharge consultant specialty**

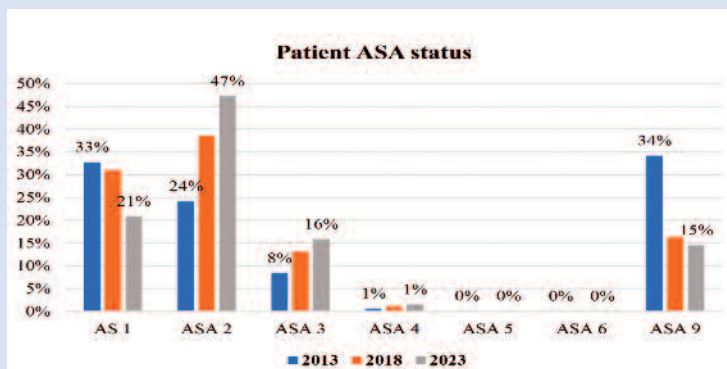
In the case of specialties where all blocks combined have a total of 5 cases or less, these have amalgamated into the category “Other”,

1.	Orthopaedics	17,479		
2.	<i>Pain Relief</i>	<i>15,036</i>	_____	
3.	Radiology	4,780	<i>19,545</i>	} = 42.2%
4.	<i>Anaesthetics</i>	<i>4,509</i>	_____	
5.	Neurology	1,721		
6.	Rheumatology	987		
7.	Clinical Neurophysiology	559		
8.	Plastic Surgery	282		
9.	Maxillo-Facial	196		
10.	General Surgery	120		
11.	Neuroradiology	106		
12.	Paediatrics	101		
13.	Paediatric Orthopaedic Surgery	96		
14.	Gastro-Enterology	55		
15.	Ophthalmology	39		
16.	Gynaecology	37		
17.	Urology	30		
18.	General Medicine	26		
19.	Oncology	20		
20.	Cardiology	16		
21.	Vascular Surgery	15		
22.	Otolaryngology (ENT)	11		
23.	Dental Surgery	11		
24.	Paediatric Surgery	11		
25.	Gastro-Intestinal Surgery	10		
26.	Dermatology	8		
27.	Paediatrics Development	7		
28.	Neurosurgery	6		
29.	Other	38		
	<b>TOTAL</b>	<b>46,323</b>		

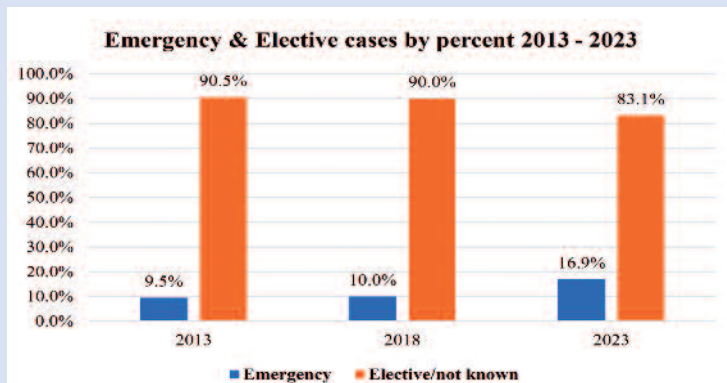
## A snapshot of GA's, Neuraxial blocks & Regional blocks for the years 2013 to 2023



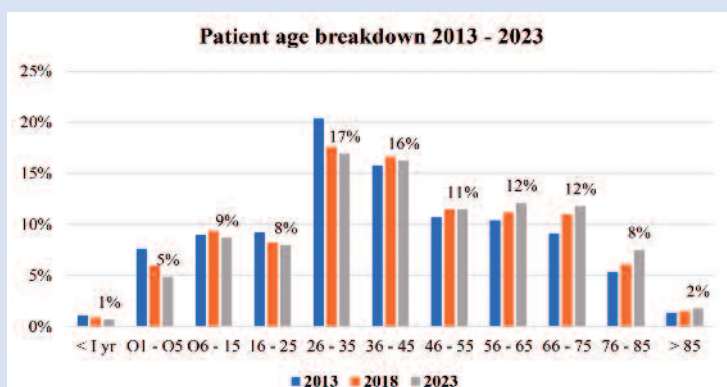
The number of anaesthetics administered each year has remained remarkably constant but interestingly the number of patients receiving an anaesthetic has fallen – the reason for this is unclear. The number of anaesthetics exceeds the number of patients because a patient may have more than one anaesthetic at the same time, e.g. a GA and a neuraxial block or the same patient may have more than one anaesthetic during the same episode of care.



HIPE coders use exclusively the anaesthetic record sheet to identify the patient ASA status. When this has not been recorded on the anaesthetic sheet ASA 9 is assigned in the HIPE database. The NCPA has emphasized the importance of accurate record keeping to colleagues on a number of occasions since 2013 so the 50% reduction in ASA 9's recorded in HIPE is very encouraging but of course the objective could and should be 0% ASA 9's. The realignment of the other ASA grades may also reflect more accurate anaesthetic record keeping as well as a real change in patient demographic.



The percentage of emergency cases has risen steadily since 2013. There are two reasons for this: an actual increase in the number of emergencies but also a significant improvement in anaesthetic record keeping specifically the use of the E modifier to indicate an emergency procedure. The ASA 99 Pilot Audit Project (2) identified a number of reasons for the high percentage of ASA 99 codes recorded in HIPE and these findings were communicated to the specialty at large by the NCPA so as to encourage better record keeping. Their efforts appear to be bearing fruit though there is still some way to go.



A definite pattern in the age distribution of patients receiving an anaesthetic is evolving. The percentage of patients aged less than 36, has been declining slowly but definitely. For the age group 36 to 45 the pattern is more stable and the contribution of the female population accessing maternity epidural or general anaesthetic services may play a part in this. Percentages in the age groups 46 to 55 and beyond have all increased steadily since 2013. These data fit well with the acknowledged pattern of an ageing society generally and underline the need for the specialty of anaesthesia to prepare and accommodate for this.

## Discussion & Conclusion

This data and subsequent report offer a valuable quantitative measure on anaesthetic activity for 2023. It is the 11th consecutive Report. This allows us to assess trends from one year to the next. It is important to highlight that while it accurately demonstrates operative productivity, it does not reflect the wide spanning role of the anaesthetist within our hospitals. In this, the 11th report, we have endeavoured to shed light on the area of pain medicine, an important discipline that is primarily, but not solely delivered by anaesthetists. The headline finding of this report is that anaesthesia activity has reached and surpassed our pre-pandemic level for the first time since the COVID-19 pandemic.

The total number of anaesthetics given in 2023 was 234,582 which is 8.9% higher than 2022. This marks the first year where pre pandemic levels of activity have been surpassed. 2023 figures demonstrate a 1.9% increased overall activity compared to 2019. This increase in total number is, in part driven by an increase in regional anaesthesia. There were 17,516 cases performed under regional anaesthesia in 2023, a 58% increase in cases performed under regional anaesthesia since 2019. This increasing trend has not slowed in 2023 with a 2.3% increase over 2022. The number of cases performed under neuraxial anaesthesia was 56,212. This demonstrates a stable figure over the past 3 years. It makes up 23.9% of all anaesthetics delivered. The number of general anaesthetics performed was 160,854, increasing from 146,282 from 2022 and is now just 5,059 short of 2019 data.

The number of female patients receiving an anaesthetic was 135,201, while the male patients numbered at 83,597. This represents a stable year on year ratio of 1.6:1. (Figure 2 & Table 2)

The pattern of ASA patient status is shown in Figure 3 and Table 3. ASA 1 patients make up 21.3% of all cases performed. ASA 2 and 3 make up 47.2% and 15.8% respectively. ASA 4 patients represent 1.4% while ASA 5 patients 1%. These data support the trend of increasing ASA 2 and 3 patients having an anaesthetic. There is a concerning upward trend in patients coded as ASA 9 which means that no ASA grade was recorded on the anaesthesia documentation. This figure has increased from 29,619(13.7%) to 34,046(14.5%). This represents a 14.9% increase since 2019 and is the only increase since 2019. While the 14.5% unrecorded ASA patient status is a worrying trend, it is still much better than 2013, where 34.2% of patients had no ASA status documented.

The breakdown of emergency and elective cases is shown in Figure 4 & Table 4. There were 39,591 anaesthetics given in 2023 for emergency procedures, which represents a 17.7% increase on the number for 2019 and is the highest figure recorded over the 11 years of auditing. As noted in previous Annual Reports, the number of emergency cases has increased every year since 2013 (there was an insignificant fall of 0.8% from 2019 to 2020, the first year of the pandemic) and is unique in this regard among all other measures of anaesthetic activity that these reports contain. The number of anaesthetics given for elective cases was 194,991, representing a 10.3% increase in elective activity. It is now only 0.77% lower than 2019 pre pandemic levels.

The age categories of patients who received an anaesthetic in 2023 are shown in Table 5 & Figure 5. Prior to the pandemic there was a steady if moderate decrease in the number of patients in the age groups of less than 36 years and a corresponding increase in numbers in the age groups 36 and older. The pandemic affected different age groups in different ways, resulting in a mixed pattern overall and this effect has not yet been reversed. Of note and in contrast to last year, all age groups have returned and surpassed pre pandemic levels, with the exception of the two youngest categories. The increase in activity is spread evenly over all the different age groups. Unsurprisingly, the number of patients under one year old undergoing anaesthesia remains constant.

Table 7 shows the twenty Intervention Chapters of the Australian Classification of Health Interventions (ACHI) and the number of anaesthetics administered for procedures in each Chapter for the years 2019 to 2023. In the 2022 report, only three chapters – Procedures on the Eye and Adnexa, Obstetric Procedures

and Procedures on the Musculoskeletal System – showed pre pandemic levels of activity. In 2023, 14 chapters reached within 1% of pre pandemic activity levels with many surpassing.

The number of patients donating organs for transplant following a diagnosis of brain stem death i.e. ASA 6, was 71 in 2023. (Supplementary data). This represents stability on the figure for 2022 which was 73 and sustains the significant recovery from the negative impact of the pandemic. There were 24 non beating heart donors which is an 84.6% increase from 2022 and a 3.4 fold increase since 2019. In a year that has seen significant legislative change regarding organ donation, this data supports the strides that are being taken to widen the donating pool and increase overall organ availability.

All acute public hospitals participate in HIPE. Please note that the 2020 and 2021 data provided does not include any public activity performed in private hospitals under the 2020 private hospital agreements.

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2. ASA 99 Report Part 1 available at [hse.ie/anaesthesia](https://hse.ie/anaesthesia) Programme Documents & Resources

## APPENDIX 1

### Hospital Groups

#### Ireland East

Mater Misericordiae University Hospital,  
St Vincent's University Hospital,  
Midland Regional Hospital Mullingar,  
St Luke's Hospital Kilkenny,  
Wexford General Hospital,  
Our Lady's Hospital Navan,  
St Colmcille's Hospital,  
St Michael's Hospital Dun Laoghaire,  
National Maternity Hospital,  
Cappagh National Orthopaedic Hospital,  
The Royal Victoria Eye and Ear Hospital, Dublin.

#### RCSI

Beaumont Hospital,  
Our Lady of Lourdes Hospital Drogheda,  
Connolly Hospital,  
St Joseph's Hospital, Raheny,  
Cavan General Hospital,  
Rotunda Hospital,  
Louth County Hospital,  
Monaghan Hospital.

#### Dublin Midlands

St James's Hospital,  
AMNCH-Tallaght University Hospital\*\*,  
St Luke's Hospital, Rathgar,  
Midland Regional Hospital Tullamore,  
Naas General Hospital,  
Midland Regional Hospital Portlaoise,  
The Coombe Women & Infants University Hospital.

#### South/South West

Bantry General Hospital,  
Cork University Hospital,  
University Hospital Kerry,  
Mallow General Hospital,  
Mercy University Hospital,  
South Infirmary Victoria University Hospital,  
South Tipperary General Hospital, Clonmel,  
University Hospital Waterford,  
Kilcreene Orthopaedic Hospital.

#### University of Limerick Hospital Group (U L Hospital Group)

University Hospital Limerick,  
University Maternity Hospital, Limerick,  
Croom Orthopaedic Hospital Limerick,  
Ennis General Hospital,  
Nenagh General Hospital,  
St John's Hospital Limerick.

#### Saolta

University Hospitals Galway  
including Merlin Park Hospital,  
Sligo University Hospital,  
Letterkenny University Hospital,  
Mayo University Hospital,  
Portiuncula University Hospital,  
Roscommon University Hospital.

#### Children

Our Lady's Children's Hospital Crumlin,  
The Children's University Hospital Temple Street,  
AMNCH-Tallaght University Hospital Paediatrics.

\*\* For reporting purposes, discharges aged 17 years and older from Tallaght University Hospital are included in the Dublin Midlands Hospital Group, while discharges aged less than 17 years from Tallaght University Hospital are included in the Children's Hospital Group.

