

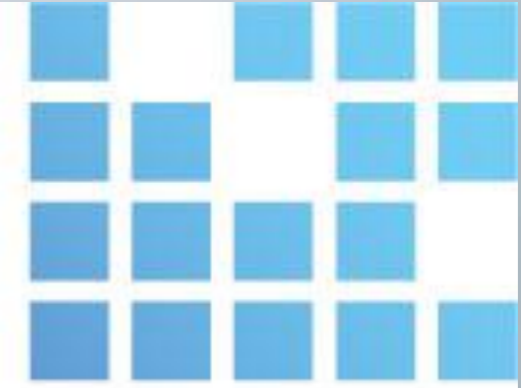
AQI

Quality is ...



28 Sep 2011

Anesthesia Quality Institute



MEMBER PRACTICE

Christine Doyle, MD

- President, Coast Anesthesia Medical Group
- Director, Society of Critical Care Anesthesiologists
 - Delegate, American Society of Anesthesiologists
- Chair, Committee on Electronic Media and Information Technology, ASA
- Vice-Speaker, California Society of Anesthesiologists
- Member, Anesthesia Advisory Board, Surgical Information Systems (SIS)
- Member, Advisory Board, Anesthesia Quality Institute



Measuring Quality

- What is it?
- What to measure?
- What non-clinical value does it provide?

What Is Quality?

• *qual·i·ty* Noun /'kwälətē/

1. The standard of something as measured against other things of a similar kind; the degree of excellence of something:

"**quality** of life"

2. General excellence of standard or level:

"**quality** beers"

Quality in Context

- Acute care events (perioperative, ICU, etc)
- Chronic care events (home health, SNF, etc)
- Acute on Chronic

What *Exactly* are you measuring?

- Failure to clarify the exact measurement leads to invalid comparisons
- If the measurements are not exactly the same, be careful what conclusions you believe

HOW TO LIE WITH STATISTICS

Darrell Huff
Illustrated by Irving Geis



Over Half a Million Copies Sold—
An Honest-to-Goodness Bestseller

HOW TO **LIE** WITH CHARTS



Gerald Everett Jones

Retrospective? Prospective?

- ASA Closed Claims project is a *RETROSPECTIVE* database, which only includes patient care events which lead to legal action of some sort.
- NACOR is a *PROSPECTIVE* database, which includes all patient care events submitted by participating members.

QA? QI?

- Goal is a prospective measurement of where you are and ways in which you can improve.

FMEA

- Failure Mode and Effects Analysis
- May be used both before launch of new product or after an event or near miss.

AQI Registries

- NACOR (National Anesthesia Clinical Outcomes Registry)
- AIRS (Anesthesia Incident Reporting System)



Why did We Join?

Why?

- difficult to improve without understanding what we do
- difficult to improve without adequate number of cases

Why?

- ability to compare ourselves with others
 - are our patients really older and sicker than everyone else's?
 - are we providing skills and techniques comparable to everyone else's?
 - are we having better or worse outcomes than everyone else?

Value Added

- Hospital CFO considered this an important item in contract negotiations with hospital payers
- Hospital CEO and CMO see this as the next step in our group's long-standing history of quality assurance and improvement efforts.

Data Submission

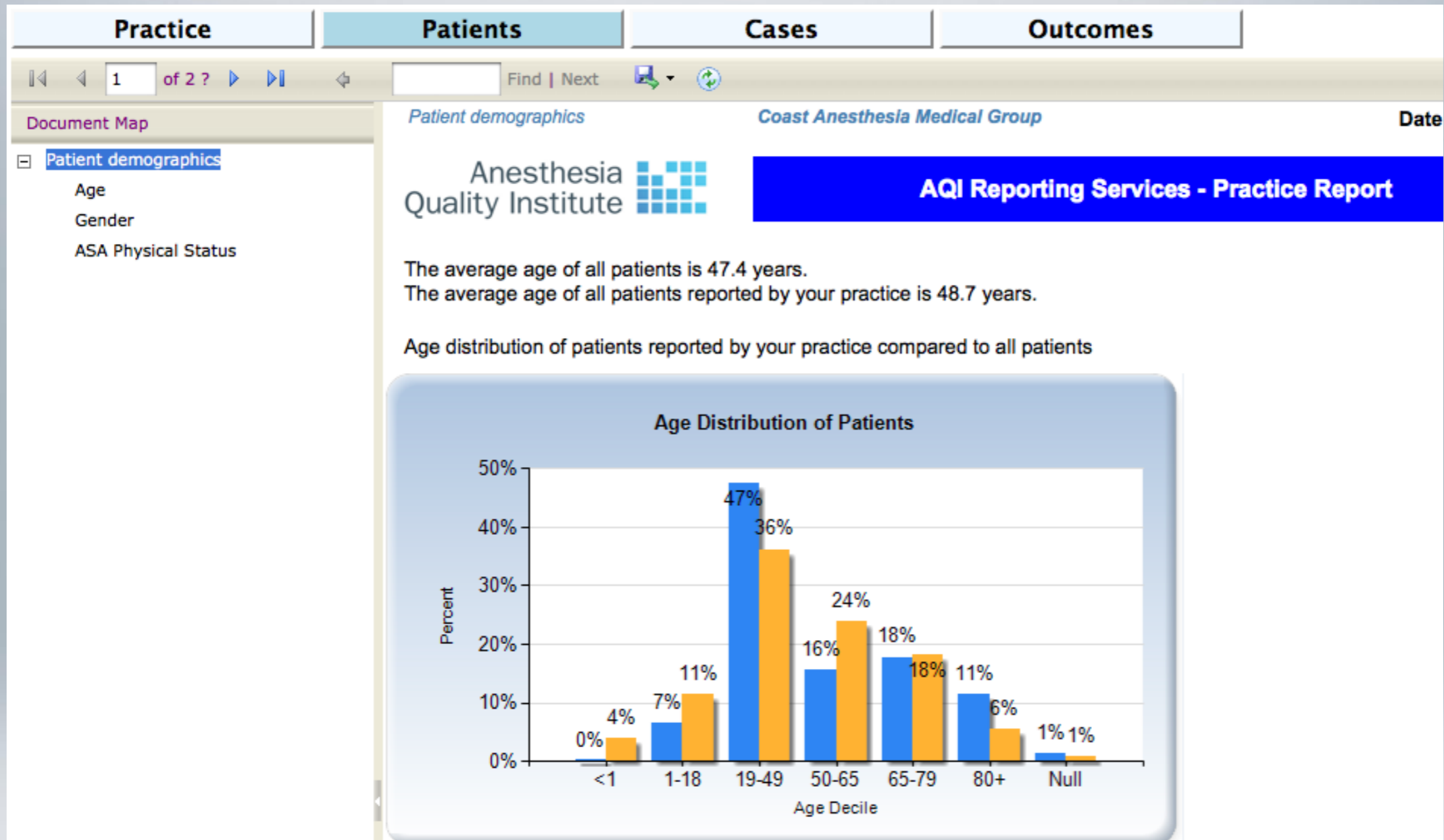
Data Submission

- Administrative Data (from billing records)
- Clinical Data (from AIMS or paper chart)

Data Acquisition

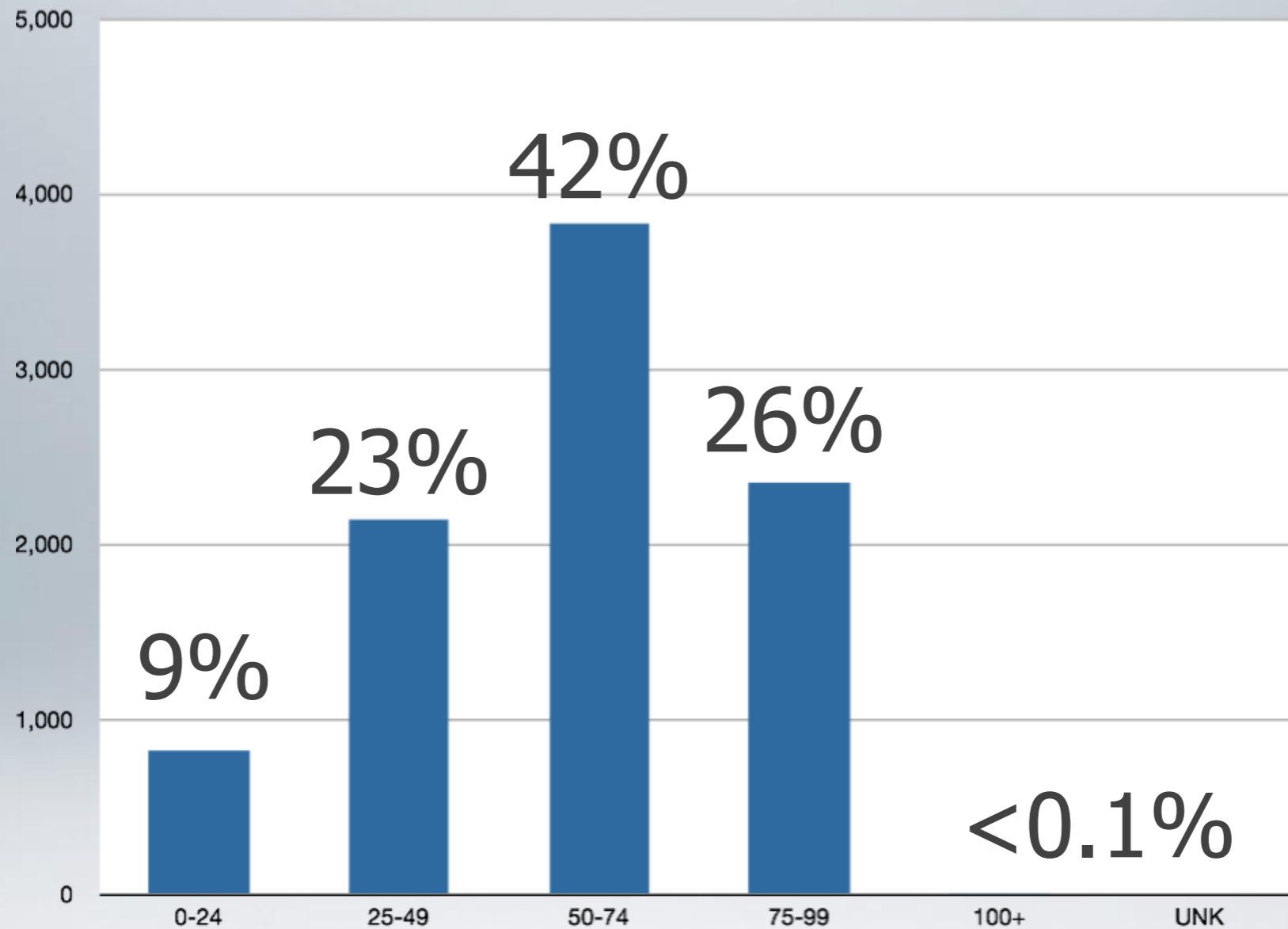
- Facility Administration must “buy in”
- IT staff may need to arrange portals or other data transfer

Preliminary Results



Patient Demographics

Age Group vs Volume



Main OR Demographics

Fiscal 2011

[Back to Practice Dashboard](#)

Practice

Patients

Cases

Outcomes

3 of 3

Find | Next

Document Map

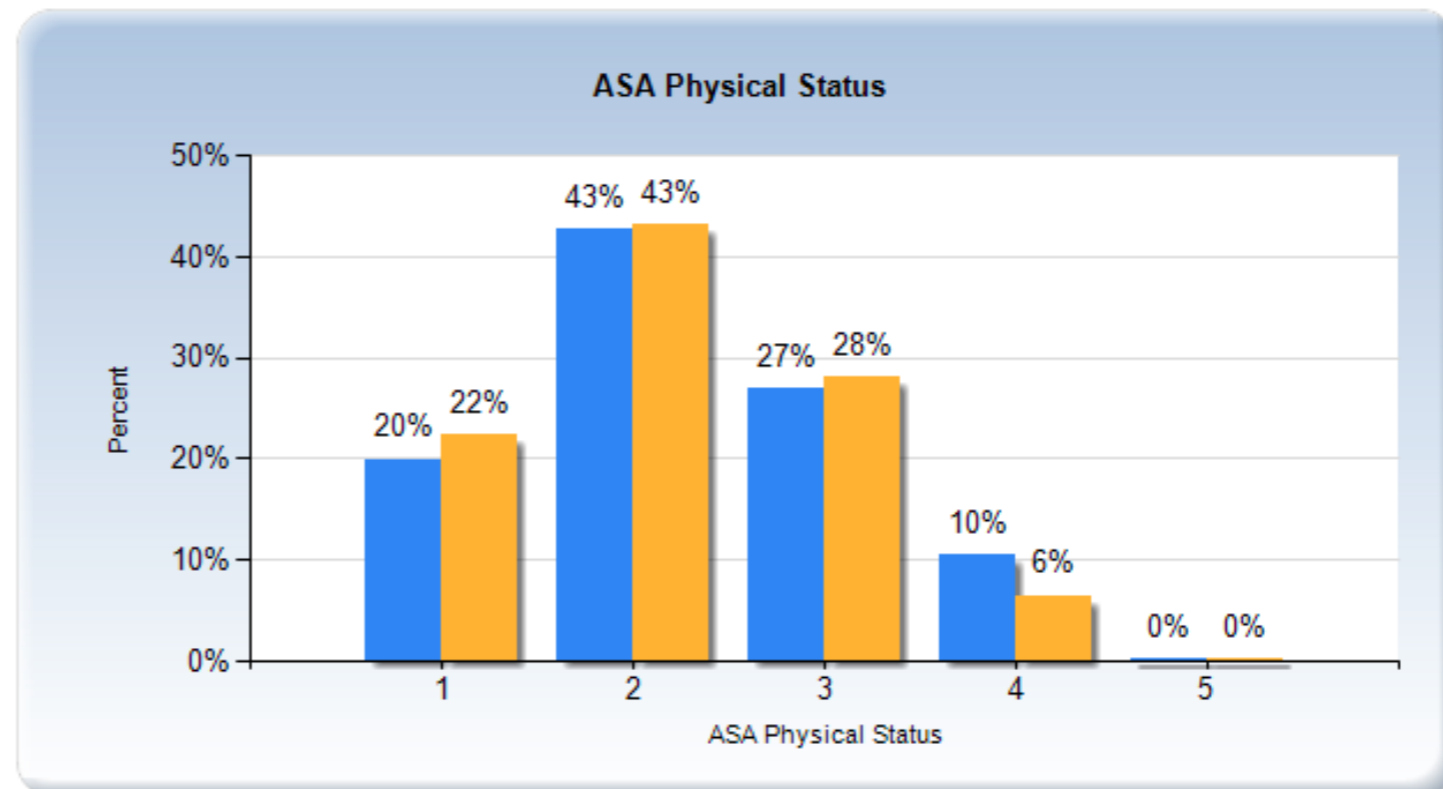
[-] Patient demographics

Age

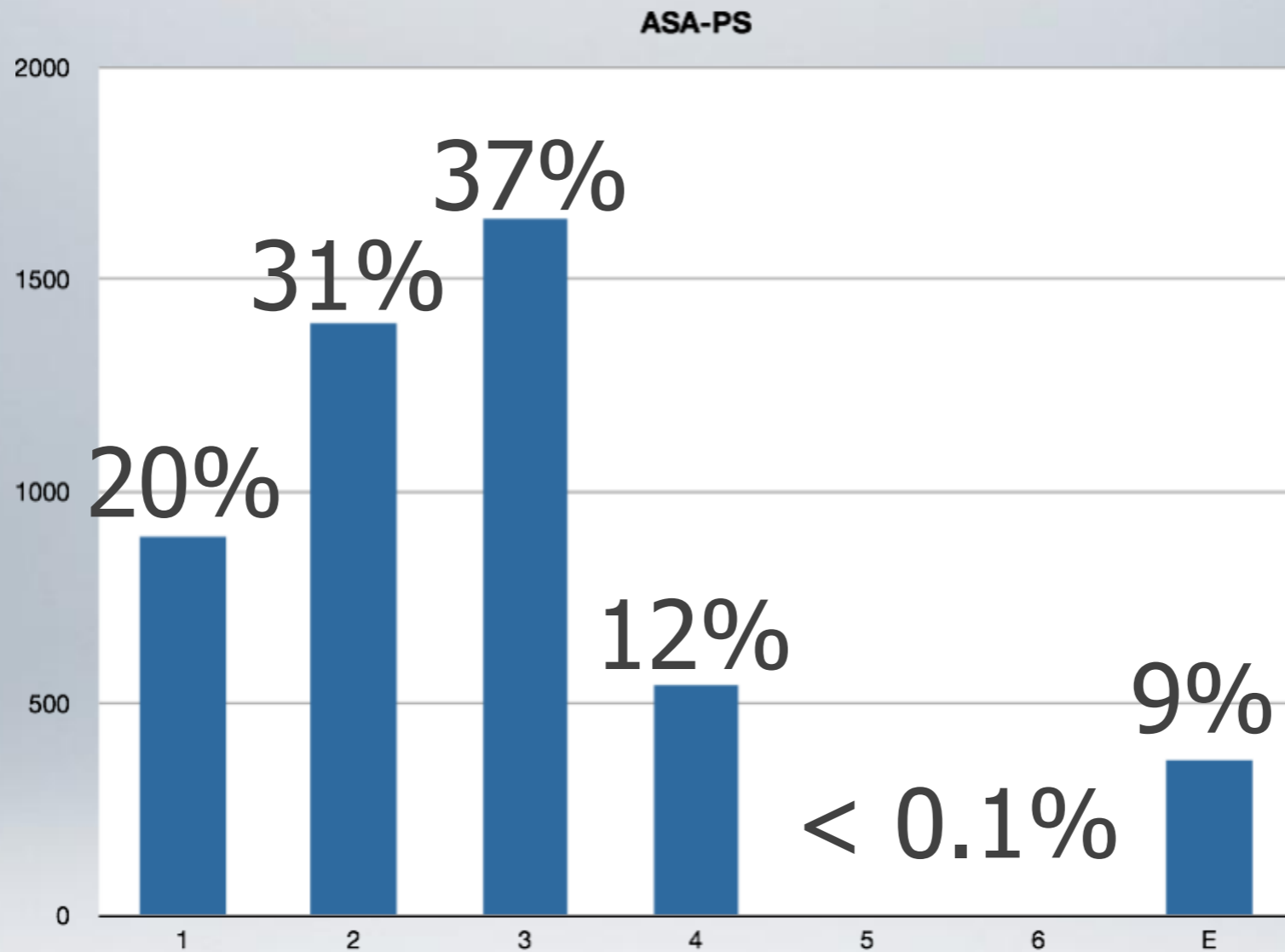
Gender

ASA Physical Status

The distribution of ASA physical status of all patients compared to the ASA physical status of patients reported by practice



ASA Physical Status

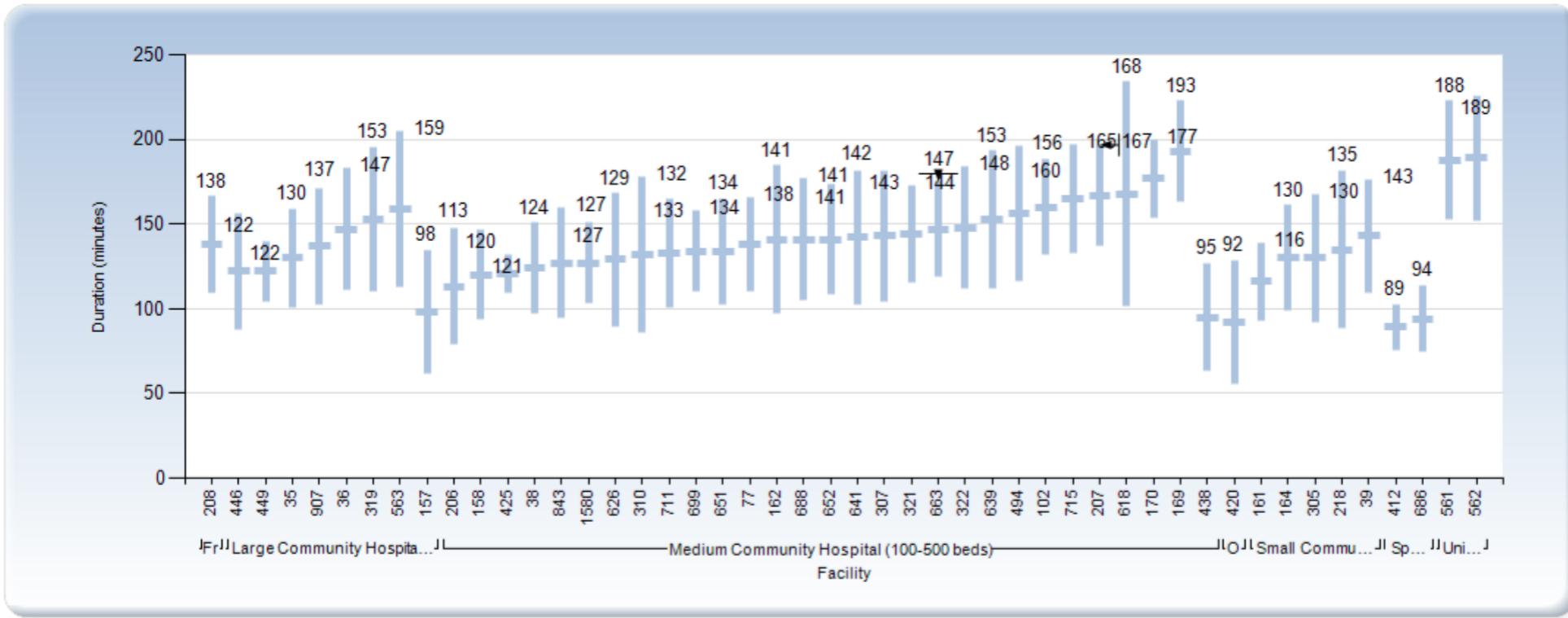


Main OR ASA-PS

Procedure Durations by Facility

The graph displays the average duration (minutes) and standard deviation (+/- 1) of the selected surgical procedure reported by all facilities within a practice and grouped by facility type. All surgical procedures reported in the National Anesthesia Clinical Outcomes Registry (NACOR) can be selected regardless of whether or not the surgical procedure is performed within your facility.

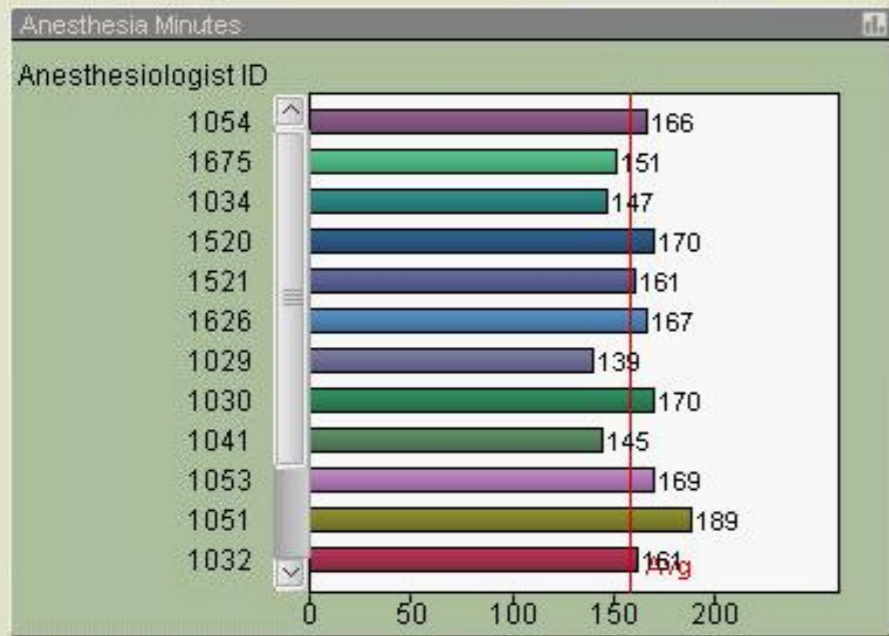
Arthroplasty, knee, condyle and plateau; medial AND lateral compartments with or without patella resurfacing (total knee arthroplasty)



*The vertical line represents the average duration (minutes) for the selected surgical procedure and extends to one standard deviation above and below the average. Facility type is determined by the practice when they fill out the practice demographic survey

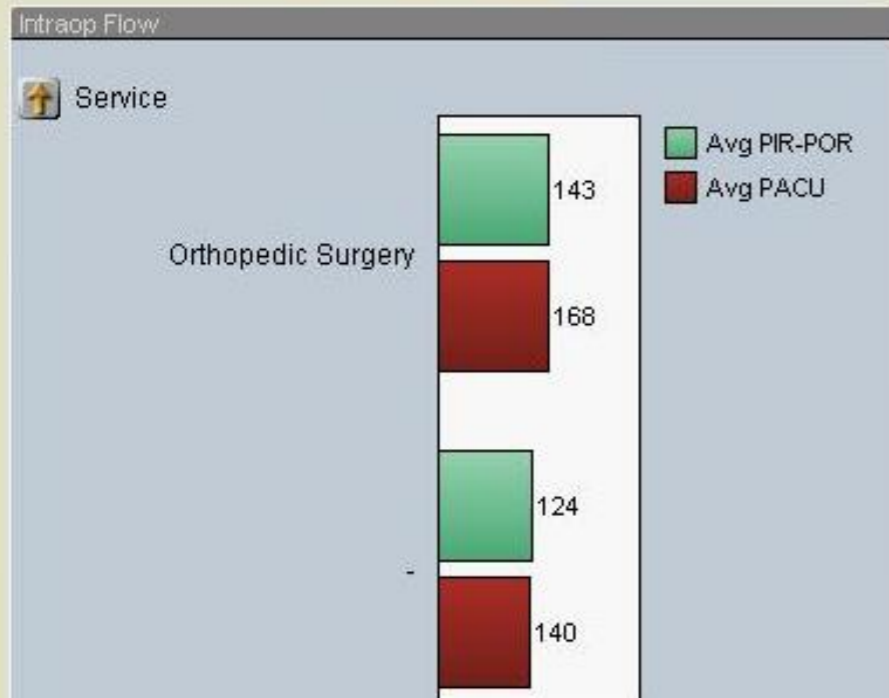
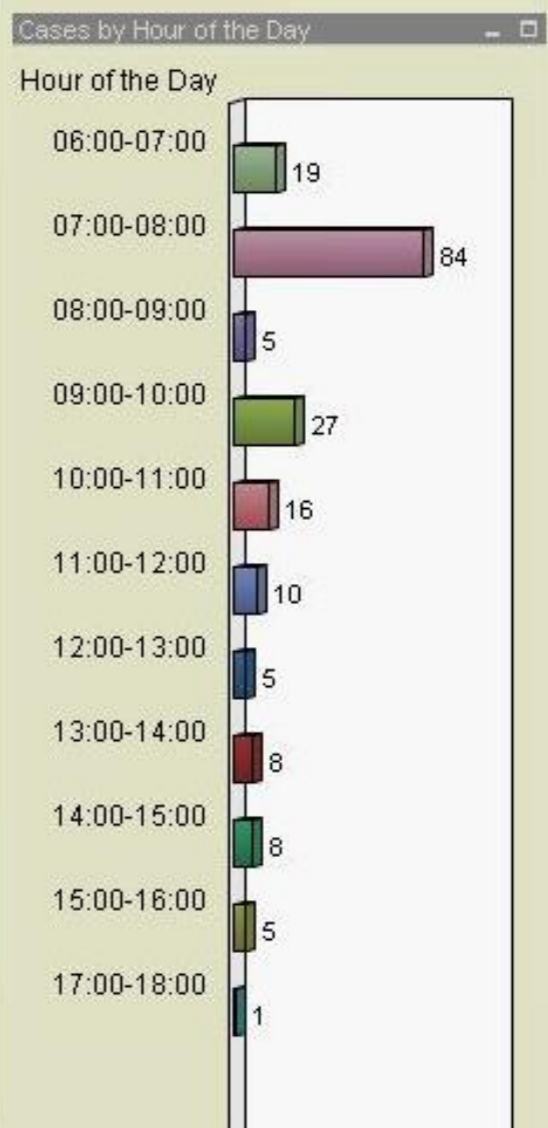
*A facility needed to report the surgical procedure > 25 times to be included on the graph

Procedure Duration - TKA



- Procedure: Arthroplasty Knee Total 190
- 3 x Stents and coil placement ** Angioplasty Femoral
 - abdominal hysterectomy with left salpingo-opherectomy
 - Abdominal hysterectomy, bilateral tubes and ovaries, resection of retr
 - Ablation Atrial (Maze Procedure) ** Replace Valve Mitral
 - Ablation Atrial (Maze Procedure) ** Replace Valve Mitral ** Replace Va
 - Ablation Endometrial
 - Ablation Endometrial ** D&C Hysteroscopy
 - Ablation Endometrial ** Hysteroscopy
 - Ablation Vein w/ Radio Frequency (VNUS) ** Ligation & Stripping Vein
 - Acromioplasty
 - Acromioplasty ** Arthroscopy Shoulder
 - adenoid fulgeration
 - adenoid fulgeration ** Tonsillectomy
 - Adenoidectomy
 - Adenoidectomy ** adenoid fulgeration
 - Adenoidectomy ** Control Nasal Hemorrhage
 - Adenoidectomy ** Laryngoscopy Direct
 - Adenoidectomy ** Myringotomy
 - Adenoidectomy ** Myringotomy w/ Tube
 - Adenoidectomy ** Septoplasty SMR Turbinates
 - Adenoidectomy ** Septoplasty SMR Turbinates ** Myringotomy w/ Tub
 - Adenoidectomy ** SMR Inferior Turbinates
 - Adrenalectomy Laparoscopic ** Adrenalectomy
 - Ampullary Mass Biopsy ** EGD
 - Amputation Finger
 - Amputation Foot
 - Amputation Foot ** amputation left big toe and second toe
 - Amputation Foot ** Debridement Wound
 - Amputation Knee Above
 - Amputation Knee Above ** Amputation Knee Above
 - Amputation Knee Below
 - Amputation Knee Below ** Amputation Toe
 - Amputation Knee Below ** Debridement Unlisted
 - Amputation of Left Forearm
 - amputation right great toe ** Debridement Wound
 - Amputation Toe
 - Amputation Toe ** Debridement Wound
 - Amputation Toe ** Gastrocnemius Resession Bilaterally
 - anal fissurectomy with sphincterotomy

Total count	186
Average	159
Max	268
Median	153



All MDs - TKA

- Events by ASA PS
- Practice Events
- Facility Events
- Provider Events
- Any PONV



AQI Reporting Services - Practice Report

One or more measures of the quality of anesthesia are report by 26 AQI Participants (84%), encompassing 329 facilities (69%) and 1,382,067 cases (89%)

Measure	Description	Practices	Percent	Cases	Percent
Admin	Administrative outcome, such as case cancel, extended PACU, unexpected admission	4	15.38%	65,566	4.74%
Major	Serious adverse event; actual patient harm or significant risk	3	11.54%	1,032	0.07%
Minor	Minor adverse event; without long-term impact	4	15.38%	48,614	3.52%
PQRS	CMS-defined process of care; antibiotics, CVL insertion, PACI normothermia	24	92.31%	208,343	15.07%
Mortality	Patient death; excluding patients presenting for organ harvesting	2	7.69%	147	0.01%

The number of all cases in NACOR with a major event reported is 1124.
The represents 0.40% of all cases performed by practices that report these measures.

The number of deaths reported to date in NACOR (excluding ASA 6 organ donors) is 147.
This represents 0.05% of all cases performed by practices that report this measure.

Outcomes

Wizard Sets
 AAnesthesia
 Personal
 Public

Patient in
 IV
 LR 1000
 NS 1000
 Cefazolin
 Rhythm
 ETT Mac
 ETT Miller
 LMA
 Spinal
 Epidural
 IV Sedation
 Oxygen
 Position
 BairHugger
 TOTS
 Reversal

Anesthesia Chart | Event Review | Patient Information | Anesthesia Notes | Times | Blocks/Lines | Fluids/C

Antibiotic Note

Start Time [Time Selector]

Comments

Infection exists prior to surgery, pt on antibiotics

Surgery Time

Start Time 03/29/2011 16:00 [Time Selector]

Height in cm
 Weight lbs kg
 Body Mass Index kg/m²

Beta Blocker Note

Start Time [Time Selector]

Comments

Beta-blocker held due to anticipated hemodynamic instability

Events Review

All None Reset Edit Remove

	Start ^\	Event Type	Description
<input type="checkbox"/> Allergy	01/14/2011 14:21	Personnel	Chen, Cheryl * Anesthesiologist
<input type="checkbox"/> Drug	01/14/2011 14:21	Personnel	Rohaninejad, Mohammadreza * Surgeon
<input checked="" type="checkbox"/> Fluid	01/19/2011 10:58	Personnel	Tugwell, Celestine * Administrator
<input checked="" type="checkbox"/> Personnel			
<input checked="" type="checkbox"/> Time Notation			

Medication History Add Edit Remove

Drug ^\	Last Taken	Dosage	Unit	Delivery	Frequency	Comments
metoprolol	01/23/2011 20:46					

SCIP view

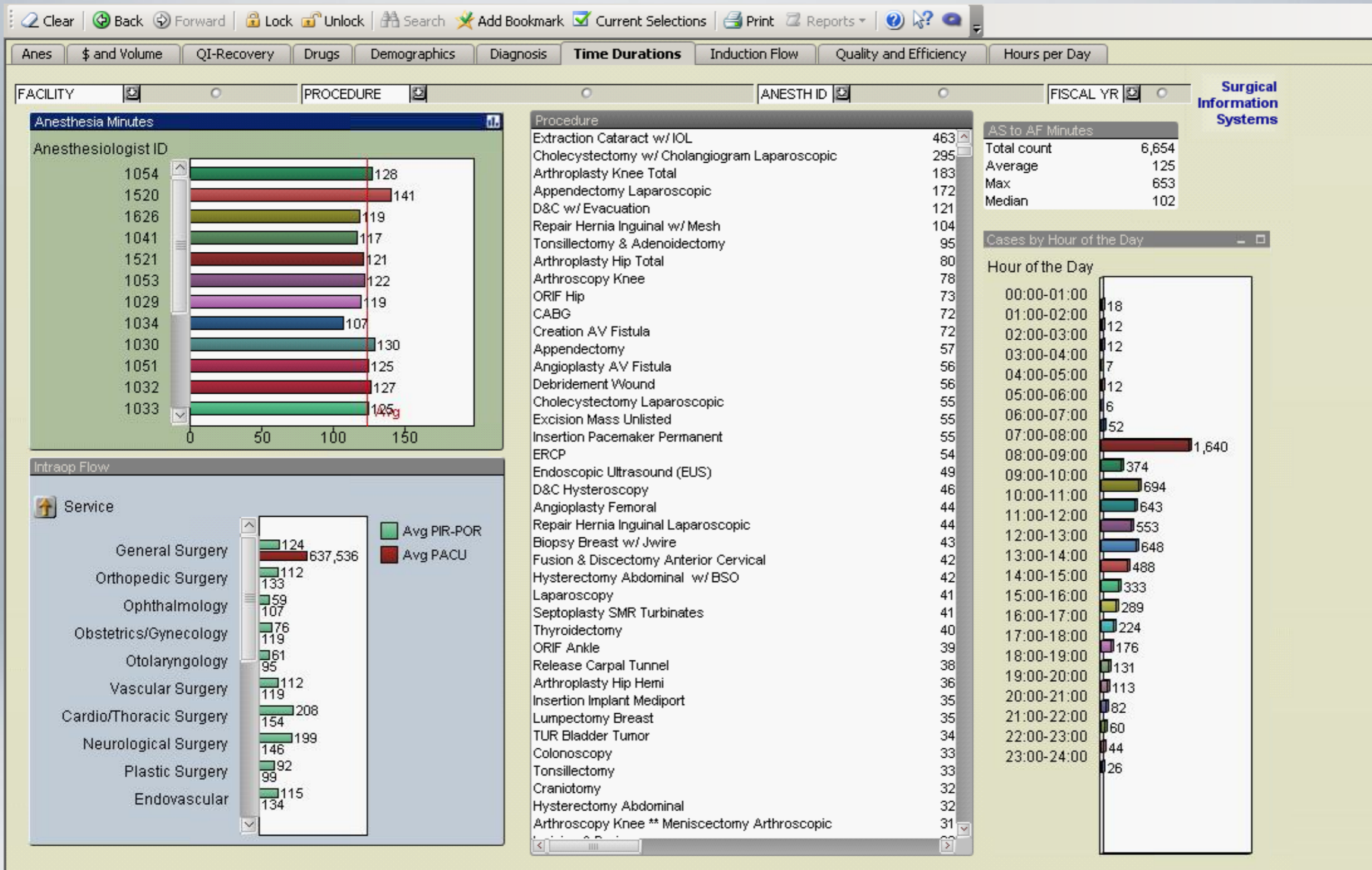
Data Validation

The number of cases by provider per month grouped by facility. The total number of cases per month may be greater than the actual number of cases reported by your practice due to multiple providers on one case.

Staff ID	Jan 2010	Feb 2010	Mar 2010	Apr 2010	May 2010	Jun 2010	Jul 2010	Aug 2010	Sep 2010	Oct 2010	Nov 2010	Dec 2010	Total
Unknown	265	278	234	175	187	200	188	171	167	406	413	224	2,908
BOJ			84	59	51	100	41	63	76	49	58	52	633
BUK	77	29	63	76	78	67	55	55	47	44	44	65	700
CHI	63	47	53	77	71	43	40	15	49	59	52	30	599
DOC	44	72	59	62	64	60	72	66	47	31	44	69	690
FOB	46	50	62	50	75	33	34	72	55			39	516
KEM	76	55	75	54	87	58	63	35	76			64	643
NGJ					9	8	56	71	47	65	55	86	397
THS	61	65	77	70	59	71	70	65	37			44	619
WEJ	86	68	65	53	83	83	78	78	51	69	67	51	832
Total	718	664	772	676	764	723	697	691	652	723	733	724	8,537

	Jan 2011	Feb 2011	Mar 2011	Apr 2011	May 2011	Jun 2011	Total
Unknown	210	179	206	213	224	220	1,252
BOJ	49	59	52	60	66	60	346
BUK	55	58	54	56	23	69	315
CHI	60	24	53	44	39	33	253
DOC	35	48	67	56	41	62	309
FOB	53	39	62	28	62	17	261
KEM	53	56	70	59	55	58	351
NGJ	57	67	48	46	67	69	354
THS	62	49	75	54	44	71	355
WEJ	36	62	61	65	52	91	367
Total	670	641	748	681	673	750	4,163

Missing Provider?



PACU Time - An Error

Questions?