www.ImplantData.com (IDA)
Overview of operation and benefits

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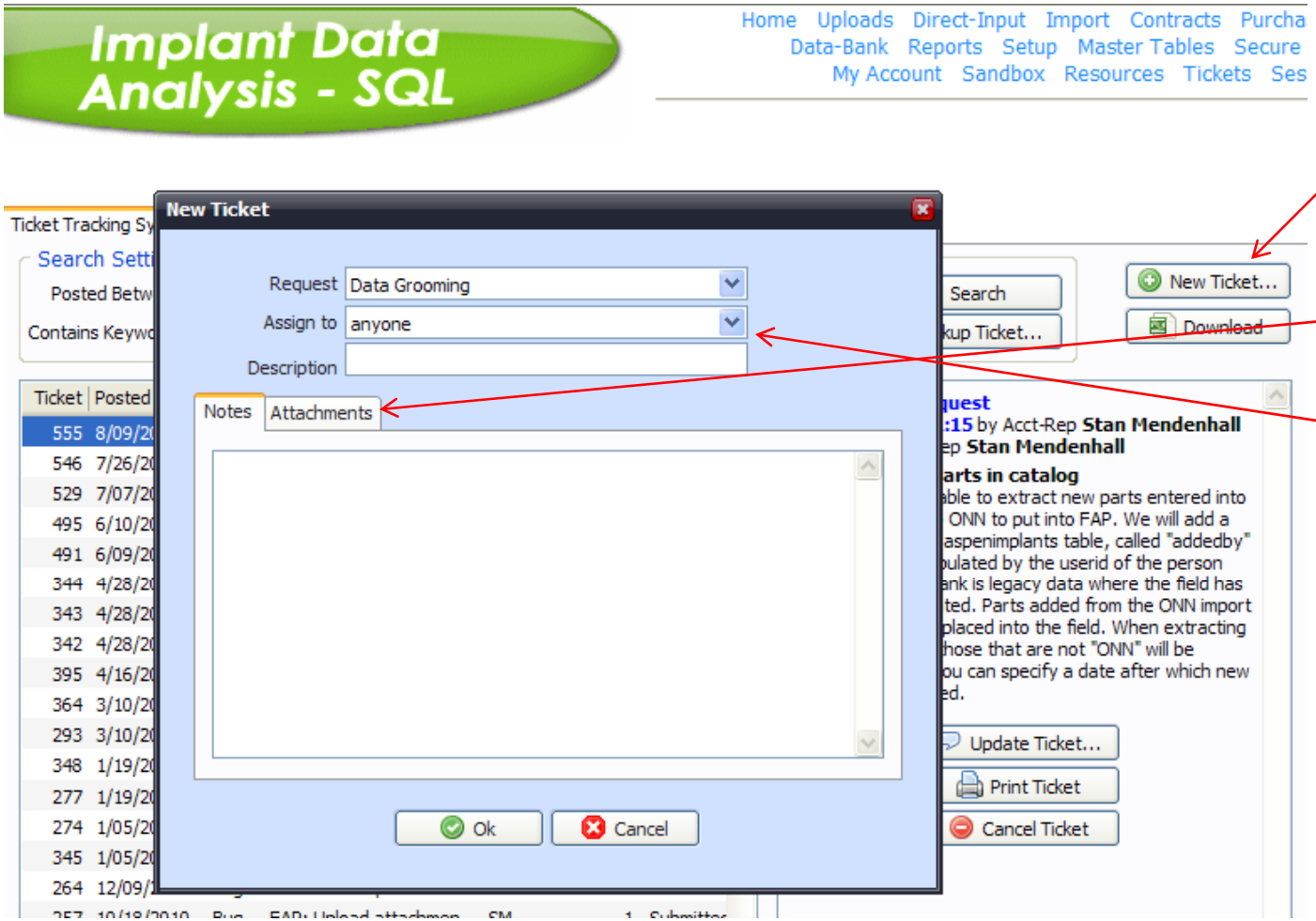
Purpose of IDA

- To assist hospitals in managing orthopedic implants
  - Monitor implant costs/case
  - Monitor product mix
- To provide platform for collecting data for national and international data initiatives
  - Orthopedic Network News pricing trends
  - Registries, both US and overseas

Key features of IDA

1. Web-based software
    a. Strategic management from monthly data submissions
    b. Generation of Purchase orders on a daily basis
    c. Flexible reporting
    d. Extensive built-in security and confidentiality
2. Extensive database, knowledgeable staff
    a. 450,000+ parts for ortho, neuro, trauma, spine
        a. We will investigate any part not in our database
    b. GIC classification of all implants
    c. Construct calculation
3. “National” benchmarks
    a. Reported quarterly in Orthopedic Network News
    b. Prefer long-term commitment from data partners

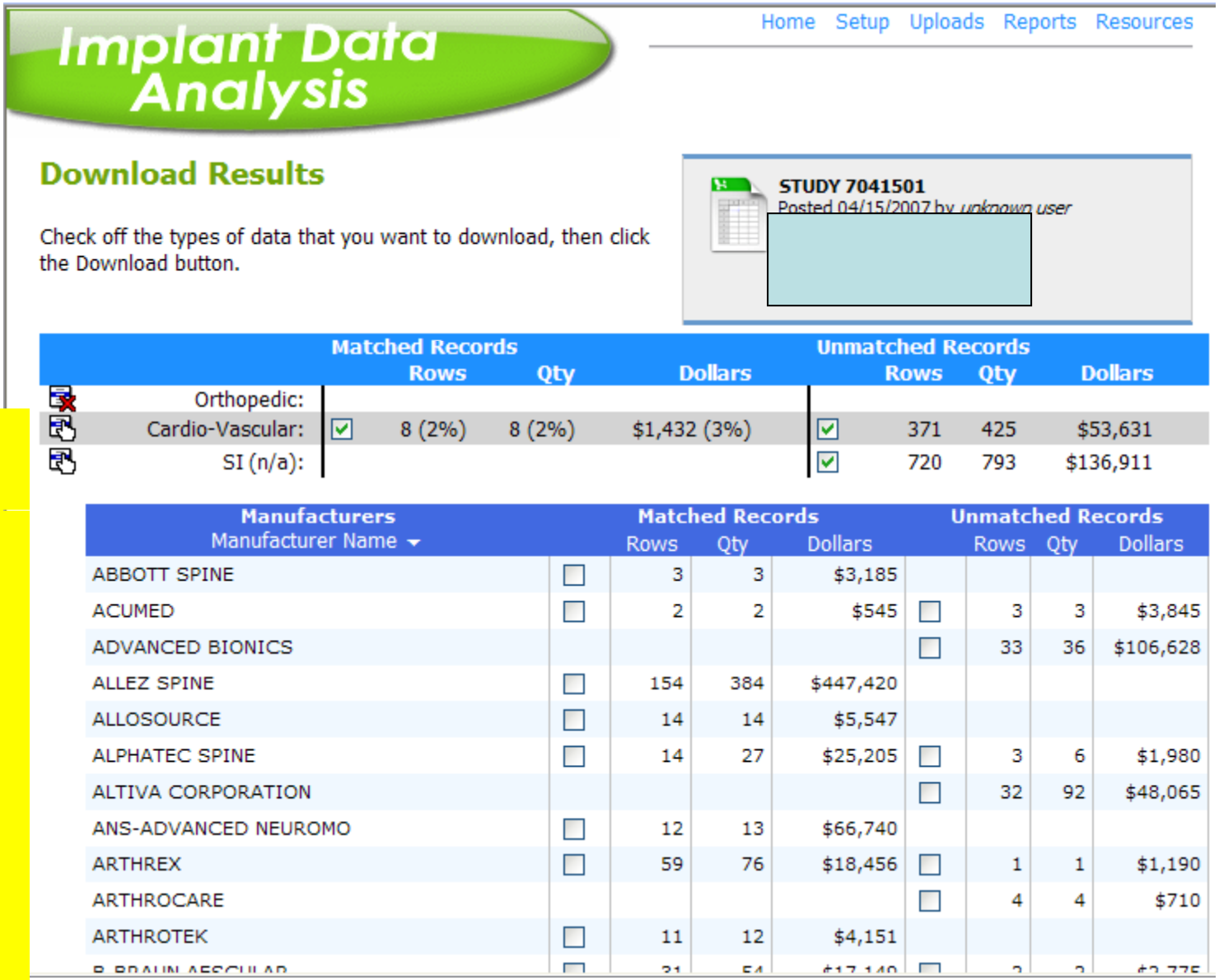
1a. Web-based tool: Monthly data submissions



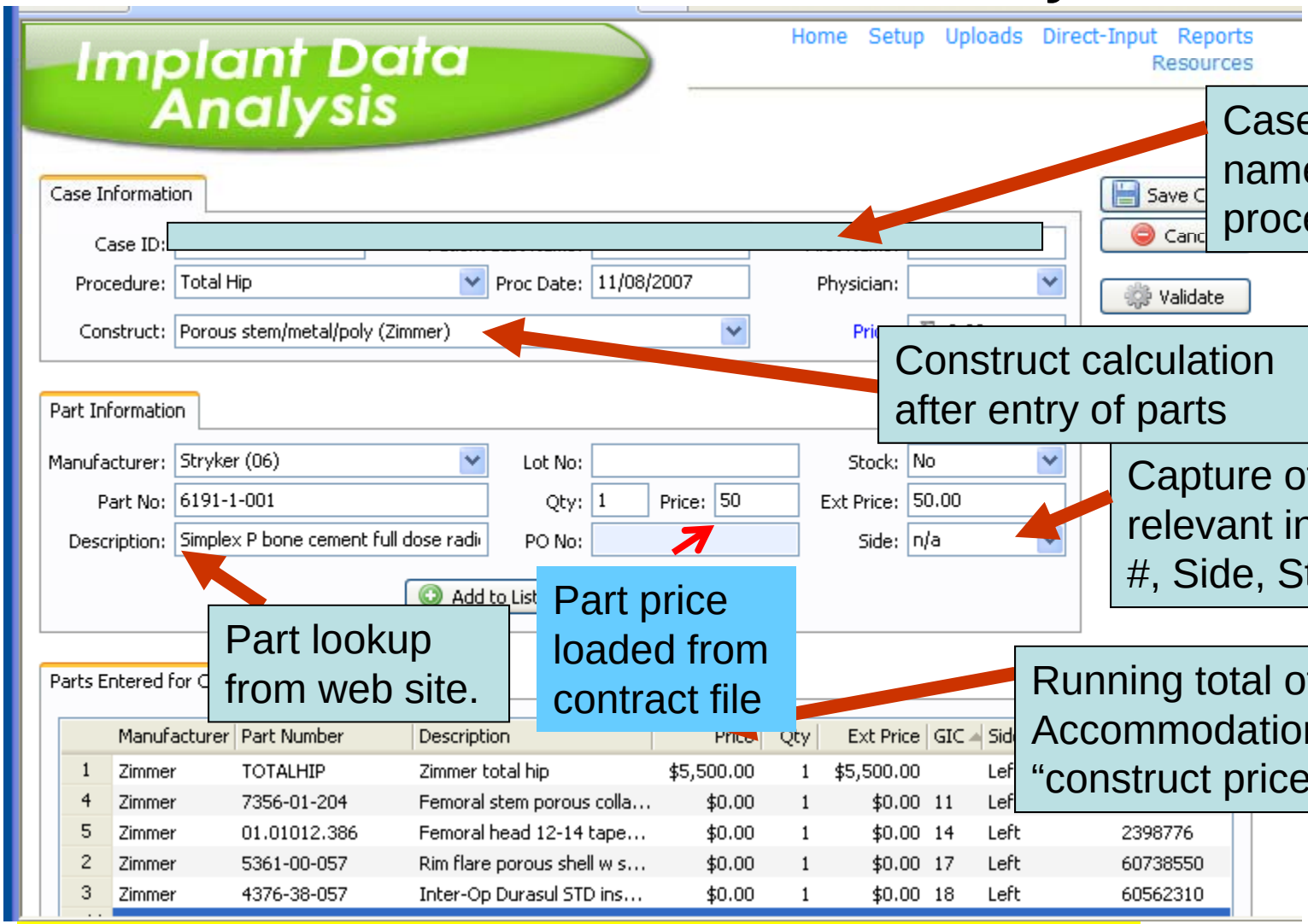
1. Ticketing system used for new submissions
2. Files uploaded for initial review
3. Assigned to Client services rep
4. Client services rep grooms the data to mutual satisfaction.
5. Client receives notification of data availability and extracts reports.

1a. Behind the scenes: Grooming the data submitted monthly

1. System matches parts submitted by hospital to catalog (about 250 manufacturers, 450,000 parts)
2. Groomers “groom” the data, fix the parts and upload the fixes.
3. Occasionally “groomers” will need to contact hospital to clarify submission. May result in addition to our catalog



1b. Generation of POs from daily submissions



Case ID, patient name, physician, procedure, date

Construct calculation after entry of parts

Capture of other relevant information: Lot #, Side, Stock, PO #

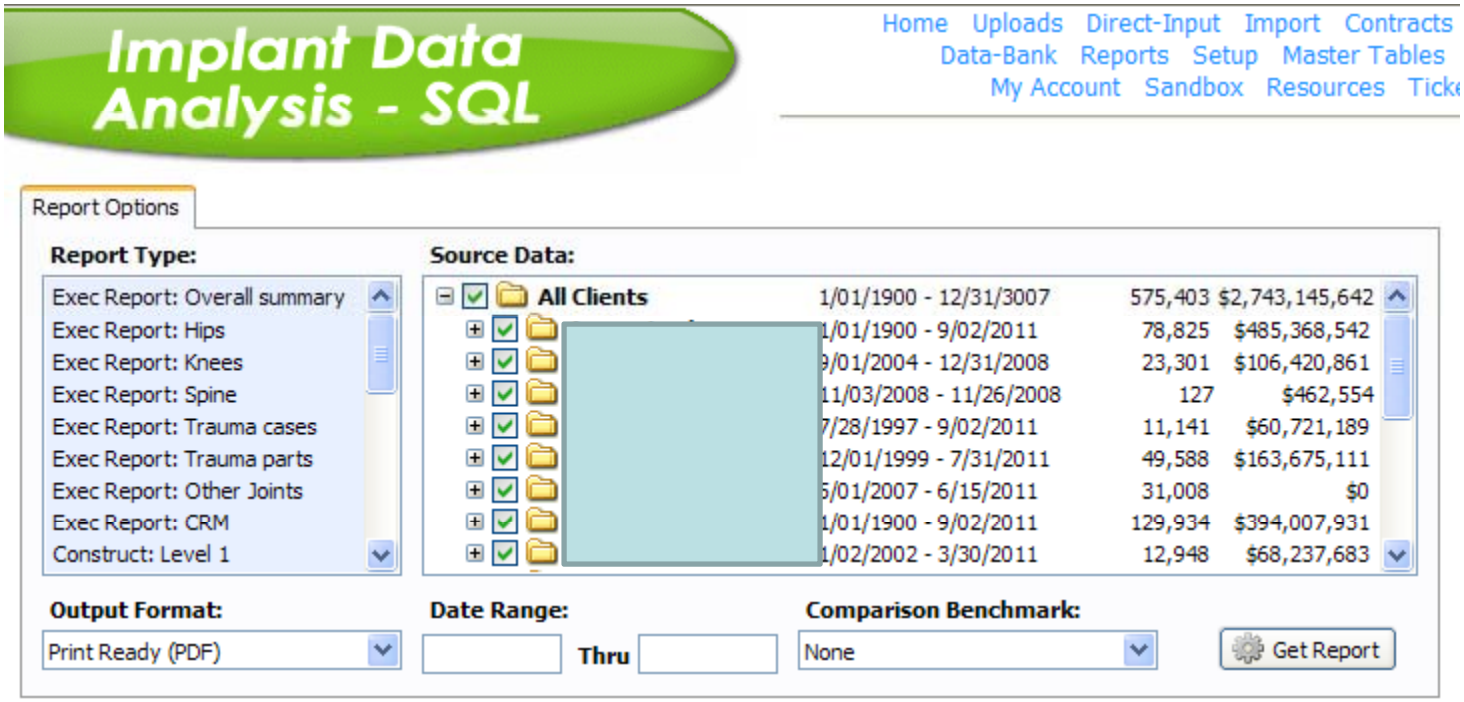
Part lookup from web site.

Part price loaded from contract file

Running total of parts. Accommodation of “construct prices”

1. Contract price autofilled
2. Extensive validation reduces errors in purchases and data
3. “Real-time” availability of information
4. Interface with several surgery and purchasing systems (SIS and Lawson)

1c. Reporting (both monthly and daily submissions)



Types of reporting:

1. 1 page executive summaries (e.g. Overall summary)
2. PDF reports of specific parameters
3. Downloads of cases and parts
4. Comparative reporting against Orthopedic Network News reported benchmarks

1c.Reports: 1 page Executive Summary

Executive Summary: Hip replacements

Purchases between: [redacted]

Comparison: O[redacted] Ja[redacted]

	Cases	Total spend	$/case	Part Comparison	Case Comparison	Total Variation from case comparison
Total hips	60	$4[redacted]				66
Partial hips	81	$6[redacted]				29
Revision hips	17	$[redacted]				54
All hips	158	$1,2[redacted]			N/A	$448,331

	Assembly type (Top 5)	Cases	Total spend	Cost/Case	Part comparison	Variation from part comp
Assemblies *Total costs of all components used in a case including bone cement, trauma, instruments, etc.*	Unipolar partial hip	33	$25[redacted]			4,858
	Resurfacing	32	$29[redacted]			1,413
	Porous stem/metal/poly	15	$11[redacted]			4,011
	Bipolar partial hip	14	$7[redacted]			3,799
	MOM/COC	13	$9[redacted]			7,965
	Subtotal (top 5)	107	$82[redacted]			4,220
	Total	158	$1,20[redacted]			0,064

	Manufacturer (Top 5)	Total spend	Part comparison	Variation
Manufacturers *Total costs of all components assigned GICs 11-29 for the manufacturer. Will not equal assembly costs.*	SMITH n NEPHEW	$6[redacted]		,969
	ZIMMER	$2[redacted]		,335
	DEPUY	$1[redacted]		,942
	BIOMET	$1[redacted]		,542
	STRYKER	$[redacted]		,743
	Subtotal (top 5)	$1,2[redacted]		,531
	Total	$1,3[redacted]		,557

1c. Reporting: PDF reports for specific parameters

Analysis of purchases by hospital, construct type, Case ID

11/29/2007

Purchases between: 11/01/2006 01/30/2007

Group type/ Demand type	Hospital ID	Mfg	Case ID	Hospital "cap" description	Case amount
Orthopedics Hips					
02 Porous stem/ceramic/poly	Test	S&N	10193993		$7,588
	Test	S&N	10194180		$7,588
	Test	S&N	10194462		$7,588
	Test	S&N	10194547		$14,073
	Test	S&N	10196899		$7,588
	Test	S&N	10196903		$7,588
Construct type summary				**Cases** 6	$52,014
					$8,669
03 Porous stem/metal/poly	Test	S&N	10193169		$6,336
	Test	S&N	10197989		$5,497

Most reports can be generated from data downloads locally.
New report requests provided within basic contract
Examples of reports added from user requests:
Waste report, report of implants billable to patients, contract price overrides, Physician/procedure report, Manufacturer/procedure report

1c. Reporting. Downloaded part detail (Excel)

Reference/
Sequence #
Used for corrections

Data input by hospital

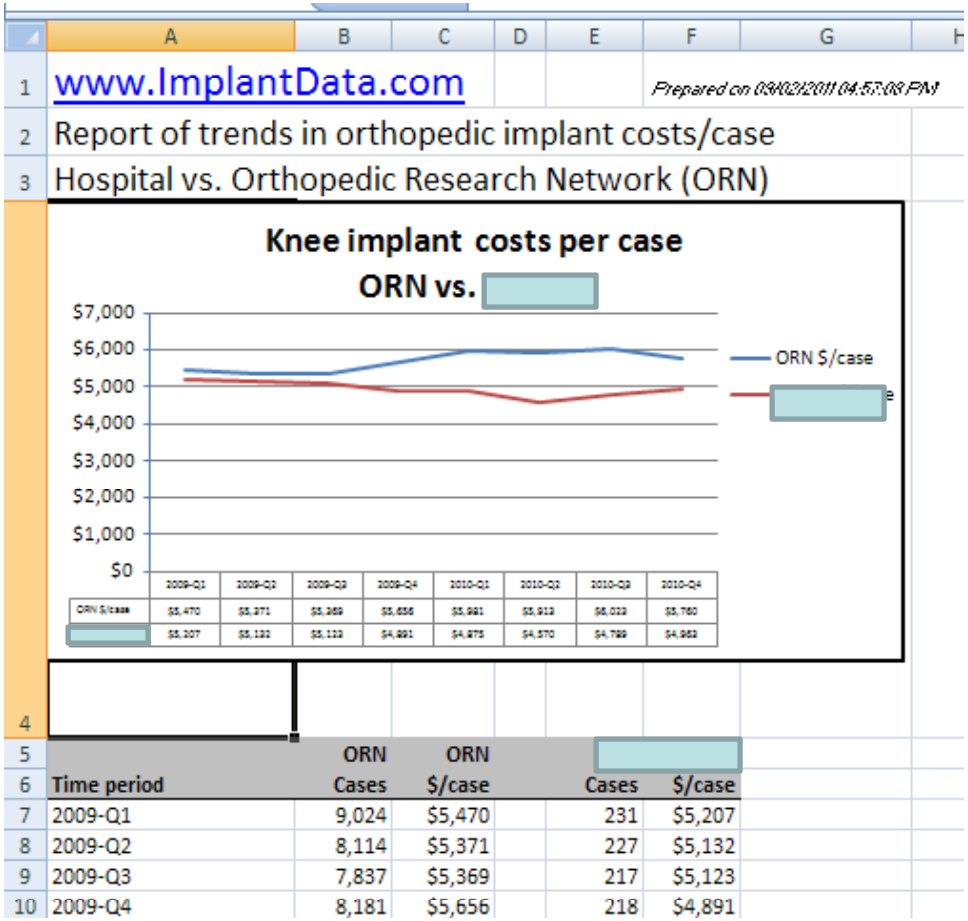
A	B	C	D	E	F	G	H	I	J	K	L	N	O	P
n_refno	n_seqn	e_type	s_state	s_hospid	s_caseid	d_pxdate	fi	s_mfgname	origpartnum	s_serialn	s_partdesc	n_price	n_qty	n_extprice
7112601	50	O	CA	Test	226800408	5/21/2007	A	BIOMET INC	154601	Phys1	COMP FEM OXFORD MD	2975	1	2975
7112601	51	O	CA	Test	226800408	5/21/2007	A	BIOMET INC	154724	Phys1	TIB TRAY OXFORD UNI STD LM D	2102	1	2102
7112601	52	O	CA	Test	226800408	5/21/2007		BIOMET INC	159548	Phys1	BEARING	920	1	920
7112601	53	O	CA	Test	226800408	5/21/2007	A	BIOMET INC	402433	Phys1	CEMENT BONE COBALT G-HV	395	1	395
7112601	54	O	CA	Test	226800408	5/21/2007	A	BIOMET INC	417200	Phys1	OPTIVAC KIT DBL MIX 80GM	173	1	173

"Added-value" data elements for Matched parts

Part number, description,GIC,Product line, sizes,"type1", material, ASPs, list price, date added

T	U	W	X	Y	Z	AB	AD	AF	AG	AH	AJ	AK	AL	AM
partnumbe	descript	gic	gicdesc	prodline	size1	size2	size3	type1	type2	material	asp2006	asp2005	currpric	adddate
154601	Oxford uni femoral ME	38	Uni knee, femur	Oxford	0	0	0				2044	2226	3183	10/4/2004
154724	Uni tibia tray mobile be	39	Uni knee, tibia	Oxford	0	0	0				1638	0	2249	10/4/2002
159548	OXD ANATOMIC BRG	34	Knee tibia, uncoa		0	0	0				0	0	984	11/12/2007
402433	Cobalt G-HV bone cem	60	Bone cement	Cobalt G	400	0	0	Cem w AB			278	295	395	4/17/2006
417200	Optivac Kit 80 Gm dou	92	Non-implanted di	Optivac	0	0	0	Cement			131	108	182	12/15/2000
													0	

1c. Reporting: Comparative reporting (introduced September 2011)



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Prepared on 09/02/2011 04:57:08 PM

Report of trends in orthopedic implant costs/case

Hospital vs. Orthopedic Research Network (ORN)

Time period	ORN Cases	ORN $/case	Cases	$/case
2009-Q1	9,024	$5,470	231	$5,207
2009-Q2	8,114	$5,371	227	$5,132
2009-Q3	7,837	$5,369	217	$5,123
2009-Q4	8,181	$5,656	218	$4,891

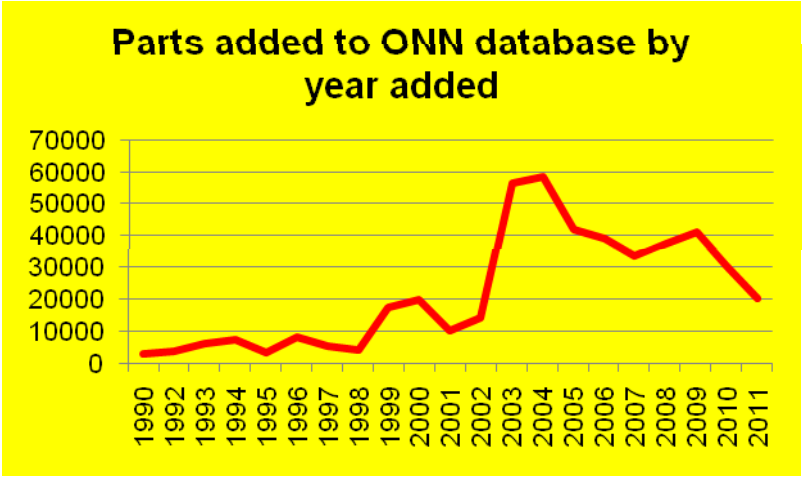
1. Comparison of hospitals performance against other members of the Orthopedic Research Network
2. Key constructs and procedure implant $/case for hospital and ORN peers
3. ORN numbers published in Orthopedic Network News each quarter in OrthoTrends
4. Segments include hips, knees, shoulders, cervical spine, lumbar spine.
5. Downloadable into Excel.
6. Chart exportable into Powerpoint
7. Includes Chart and Data tables.

1d. Web-based software: Security and confidentiality

- Security
  - System hosted by Rackspace with two servers
  - Extensive password protection and privileges assigned to each piece of data for each user
  - Logging and investigation of errors, requests, bugs
  - Annual security review by outside party (details available on request)
- Confidentiality
  - Fully HIPAA compliant
  - BAA agreements signed with all clients
  - No pricing information provided if fewer than 5 hospitals submitted
  - Data anonymized before providing to other parties

2a. Extensive database of components

- 450,000+ items in database added over 20 years
- All assigned a GIC© classification code when added to database
- Sources
  - Manufacturer price lists from 200+ suppliers
  - IDA hospitals requesting assistance in part
- Information maintained
  - Pricing information
  - Classification
  - Illustrations/pictures



2b. Classification of all components: GIC© classifications for parts

Coated hip femur	11 	*Materials:* CC,HA,HT,TI,TR
Uncoated hip femur	12 	*Type1:* Press-fit *Materials:* CC,HT,PR,SS,TI
Femoral head, metal	14 	*Type1:* Resurface *Materials:* CC,SS
Femoral head, ceramic	15 	*Materials:* AL,CE,OX,ZI

1. Orthopedic classification of parts
2. Assigned to all 450,000 implants received
3. Represents clinical relevance of components
4. Used in calculation of constructs and validation
5. Average selling prices (ASP) and usage reported in Orthopedic Network News
6. Basic classification unchanged for 10 years
7. Items “subclassified” as necessary for new technology (e.g materials, functions, design)
8. Classification used by many providers and manufacturers

2c. Constructs: Key factors

- Difficult for hospitals to determine a construct from patient's components
  - Many "cap" agreements with manufacturers based on varying definitions of constructs.
- ONN has developed constructs for joints, spine, and trauma based on GICs assigned to implants for a case.
  - Hospital will still need to negotiate specific caps and prices, but ONN constructs serve as a basis.
- Updated as needed, but maintained by MAI
- Construct logic available on request

2c. Construct calculation

Calculation of patient's construct based on parts they have received

Step 1: Determine "case" Assign GICs and other relevant Information:
Case X has parts with GIC 11, 14, 17, 18

Case	Part #	Description	GIC
X	6051-1076	Coated hip stem	11
X	06-3200	Femoral head	14
X	542-11-32E	Shell	17
X	621-0T-32E	Liner	18

Step 2: "Collapse" case with GIC counts

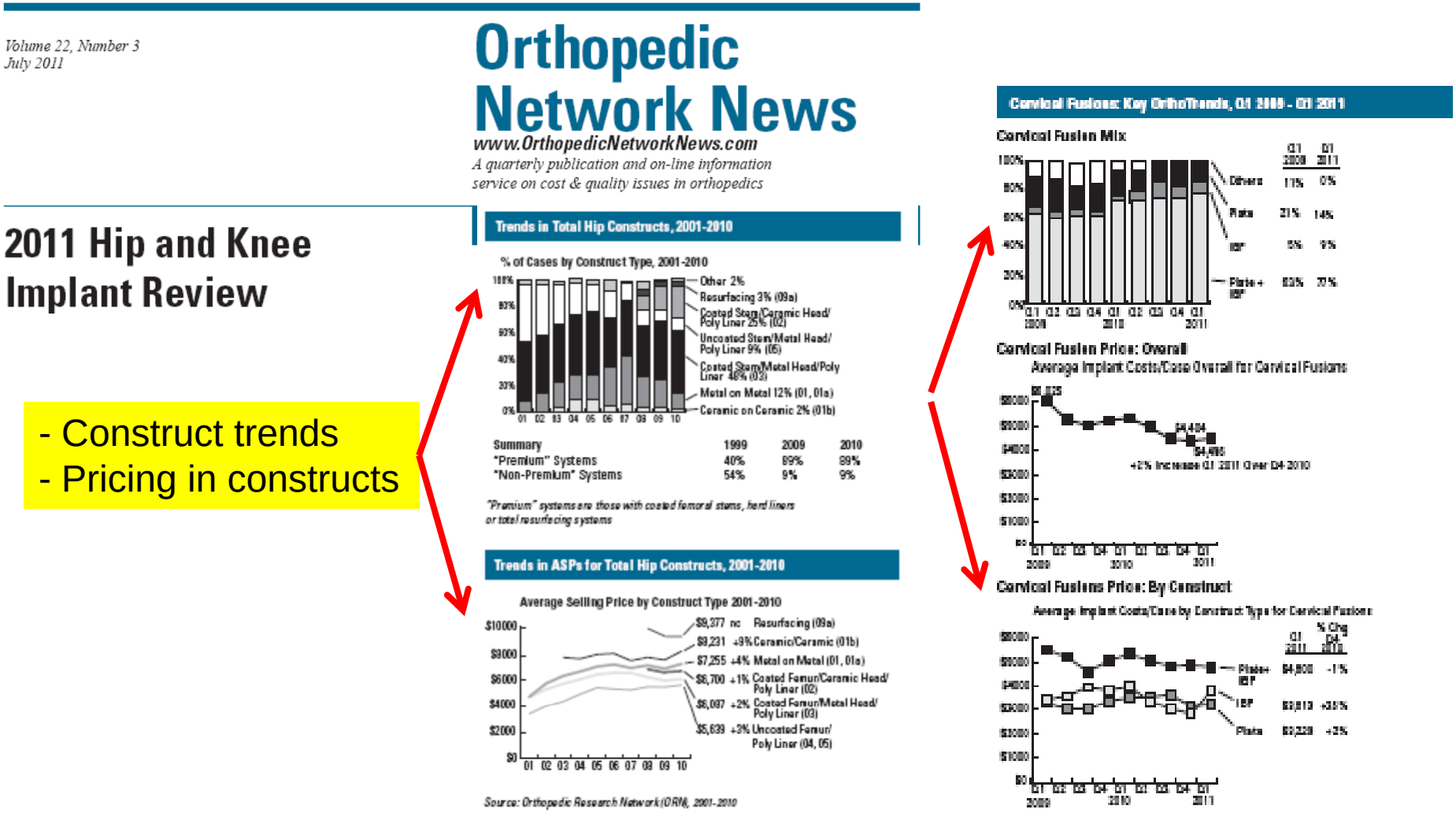
Case	GIC11	GIC12	GIC14	GIC17	GIC18	GIC20
X	**1**	**0**	**1**	**1**	**1**	**0**
Y		1	1	1	1	

Step 3: Compare case GICs to construct rules and assign construct or "99" (unknown).

About 90 constructs for joints, trauma, spine

Construct master table
1 Metal on metal: (GIC11 or GIC12) and GIC14 and GIC17 and GIC20
2 Porous coated hip/metal head: GIC11 and GIC14 and GIC17 and GIC18
Case is assigned construct "2"

3c. “National” benchmarks



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A quarterly publication and on-line information service on cost & quality issues in orthopedics

2011 Hip and Knee Implant Review

- Construct trends
- Pricing in constructs

Trends in Total Hip Constructs, 2001-2010

% of Cases by Construct Type, 2001-2010

Other 2%
Resurfacing 3% (09a)
Coated Stem/Ceramic Head/ Poly Liner 25% (02)
Uncoated Stem/Metal Head/ Poly Liner 9% (05)
Coated Stem/Metal Head/Poly Liner 48% (03)
Metal on Metal 12% (01, 01a)
Ceramic on Ceramic 2% (01b)

Summary	1999	2009	2010
"Premium" Systems	40%	89%	89%
"Non-Premium" Systems	54%	9%	9%

"Premium" systems are those with coated femoral stems, hard liners or total resurfacing systems

Trends in ASPs for Total Hip Constructs, 2001-2010

Average Selling Price by Construct Type 2001-2010

$8,377 nc Resurfacing (09a)
$8,231 +9% Ceramic/Ceramic (01b)
$7,255 +4% Metal on Metal (01, 01a)
$6,700 +1% Coated Femur/Ceramic Head/ Poly Liner (02)
$6,087 +2% Coated Femur/Metal Head/ Poly Liner (03)
$5,639 +3% Uncoated Femur/ Poly Liner (04, 05)

Source: Orthopedic Research Network (ORN), 2001-2010

Cervical Fusions: Key OrthoTrends, Q1 2009 - Q1 2011

Cervical Fusion Mix

Others 11% 0%
Plate 21% 14%
ISF 5% 9%
Plate + ISF 63% 77%

Cervical Fusion Price: Overall

Average Implant Costs/Case Overall for Cervical Fusions

+2% Increase Q1 2011 Over Q4 2010

Cervical Fusions Price: By Construct

Average Implant Costs/Case by Construct Type for Cervical Fusions

Plate+ ISF $4,800 -1%
ISF $3,813 +35%
Plate $3,228 +2%

3c. What happens to my data when submitted through IDA?

- Data owned by hospital, not by ONN or other parties
- Data is “pooled” with other submitters to develop trends in implant cost, product mix, and other key factors
- Data is “anonymized” for market researchers
  - Hospital, patient, IDN, and procedure date all de-identified before providing to any party
  - Pricing information not provided if fewer than 5 hospitals in a cell to protect pricing contracts

Summary of IDA

- Well-tested web-based software
  - About 180 hospitals data submitted through system
- Extensive database and commitment for investigating implants
- Nationally reported benchmarks
- Protection of anonymity of hospital, physician, and patient