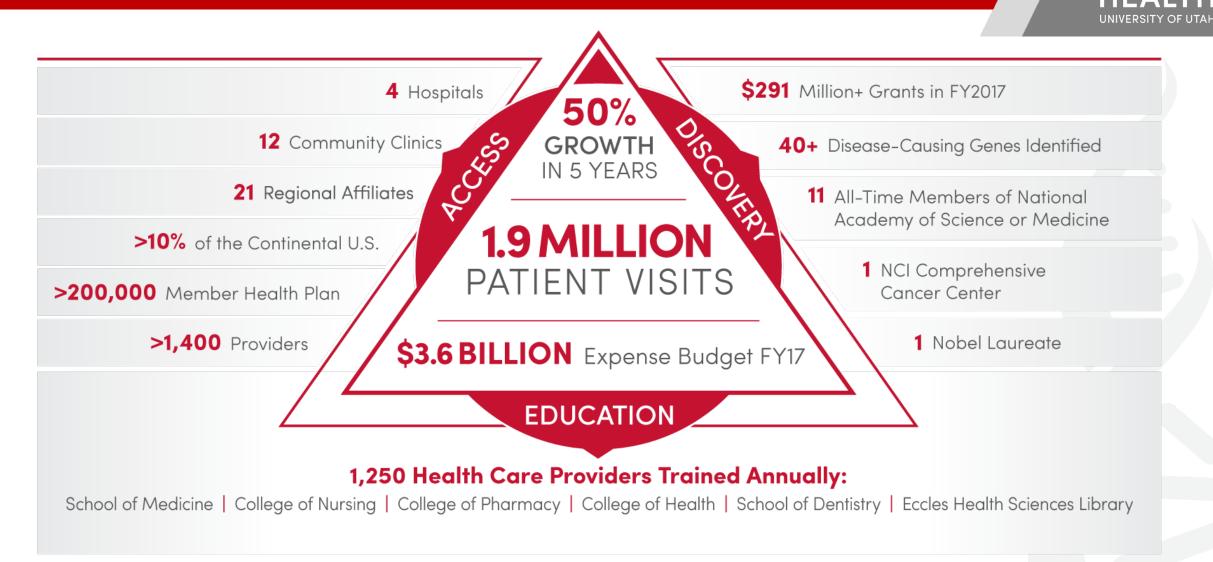
Applying Value Driven Outcomes to Evaluate an Age Friendly Health System



Charlton Park, MBA, MHSM Chief Financial Officer University of Utah Hospital and Clinics

### University of Utah Health



### Value Measurement

"... A fundamental and largely unrecognized problem: We don't know what it costs to deliver health care to individual patients, much less how those costs compare to the outcomes achieved."

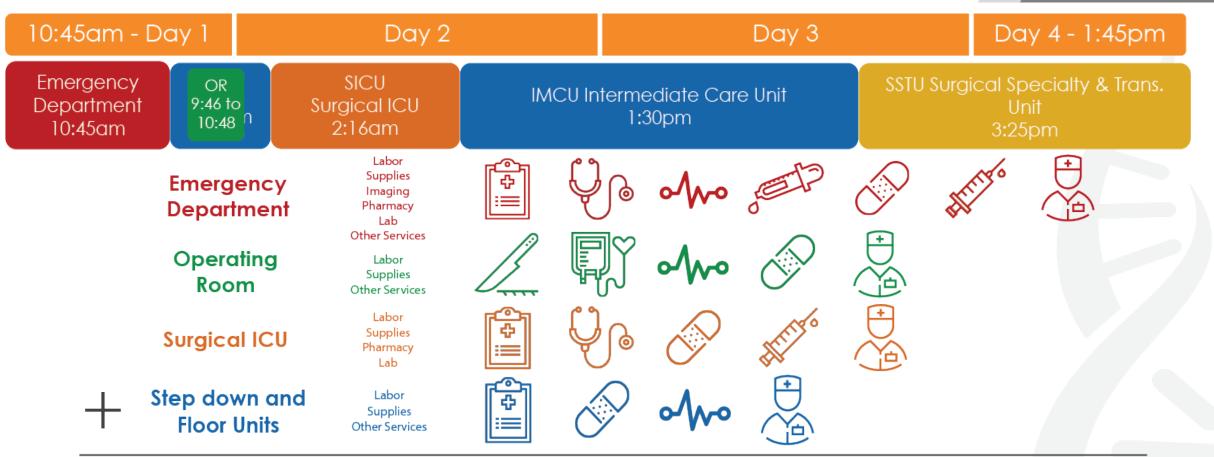
*"Understanding costs could be the single most powerful lever to transform the value of health care."* 

- Robert S. Kaplan & Michael E. Porter



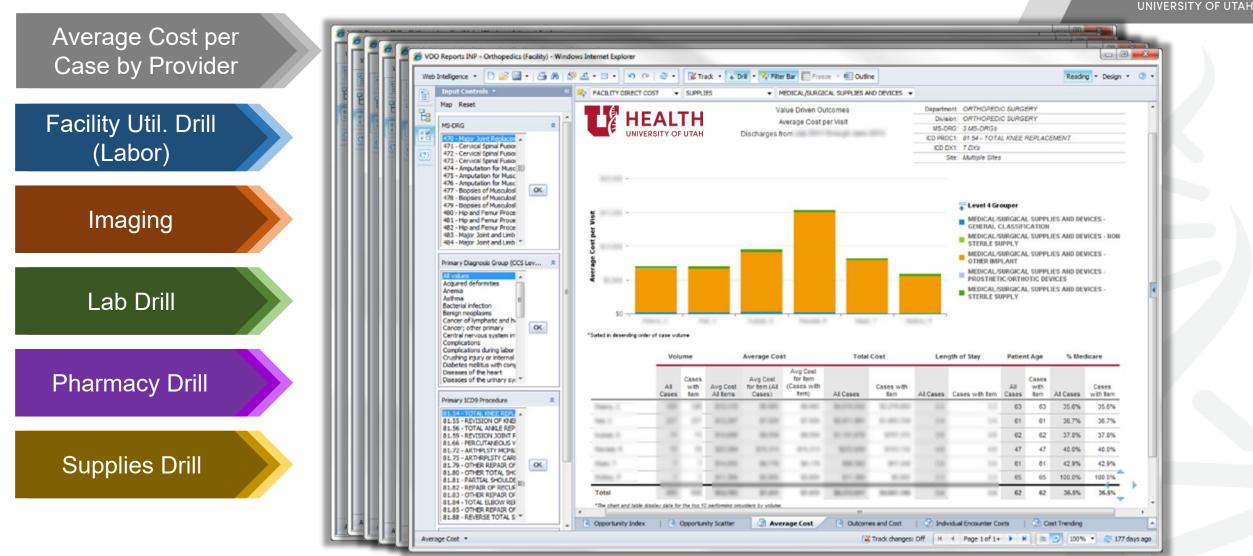
### Ex. Emergency Appendectomy, 3.12 LOS





### **Total Cost of Providing Patient Care**

### **Understanding Cost**



HEALTH

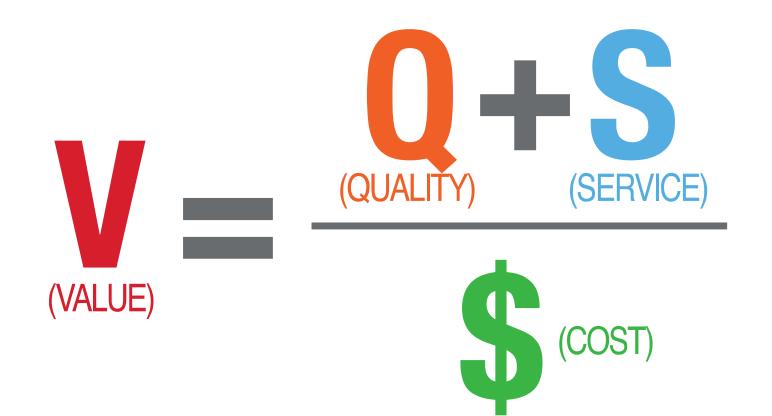
### **Detailed Cost Data**



HEALTH

### Value Equation





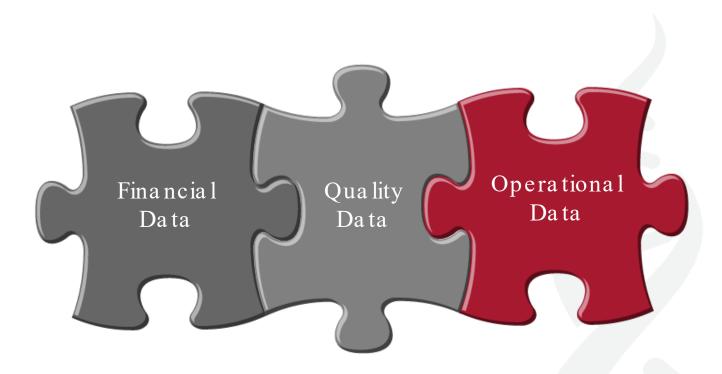
Value Driven Outcomes

7

## **Engaging Providers with Analytics**

- Accurate and actionable data, including metrics that are meaningful to providers
- Involve providers in the development of analytics
- Get <u>specific</u> (provider scorecards, O.R. supplies, specific condition outcomes, etc.)
- Provide support

UNIVERSITY OF UTAF



### Engaging in Analytics

- Physician Engagement (Chief Value Officers)
- Subject Matter Experts
- Support Teams

Va lue

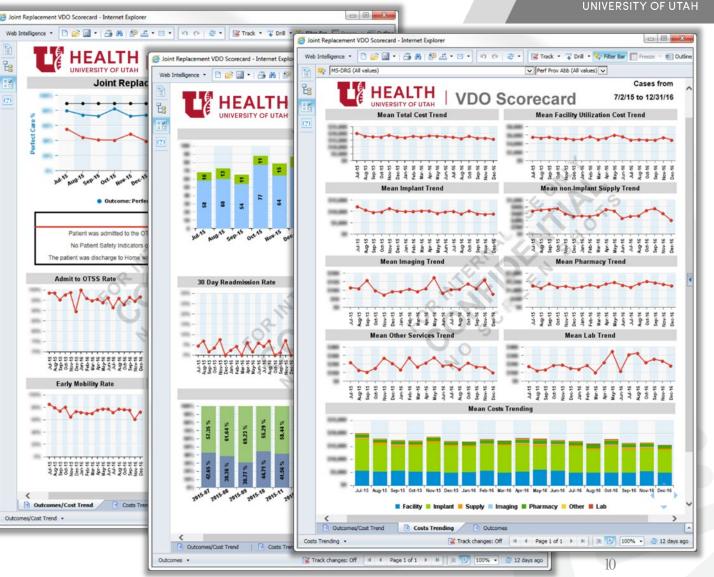
upport icams			Value Engineering	Quality	Decision Support Daniel Findley
	utmont	MD Champion(s)	Collin Seabourne	Tim Nelson Jim Stamos	Candice Crawford
Medical Condition	Department Medicine		Cindy Spangler Steve Johnson	Tim Nelson	Jeff Young Jeff Young
Sepsis	Medicine	Jim Pang, ood Chris Pelt	Lleyton Wade	Tim Nelson	Blake Bohe
HeartFailure	Ortho	D wick Preis	Andrew McLeod	Brian Black	Blake Bohe/Jeff Youn
Joint replacement	Ortho	Jennifer Majersik, Philip Taussky	Gavin Brown	Brian Black/Tim Nelson	Dobe/Jeff Your
Rotator cuff/shoulder	Neurology/NSG	Darrel Brodke, Meic Schmidt	Cynthia White	Brian Black/Tim Nelson	Candice Crawford
Stroke/TIA/intracranial hemm	NSG/Ortho	Darrei Brodita,	Made	Jim Stamos	Tony Clawson
low back pain/spine surgery	NSG	Darrel Brodke, Choke Nassir Marrouche, Fred Han, John Ryan	Lleyton Wade	Eve Thorup	Candice Crawford
Neck pain/cervical fusion	Medicine	Nassir Marrouche, 1700 Joe Stelik, MIke Gilbert, Craig Selzman	Gavin Brown	Jim Stamos	Ben Helland
A fib/A flutter	Medicine	Joe Stelik, Mike Gilbert, et al. David Bull, Jack Morshazadeh, Fred Wel	t Gavin Brown	Susan Wright	William Johnson
Heart transplant / LVAD	Medicine	David Bull, Jack Morshaza	Steve Johnson		
Driven Quiteon éshest pain		Craig Selzman			
CABG	Surgery				

HEA

UNIVERSITY OF UTAF

### **Joint Scorecard**

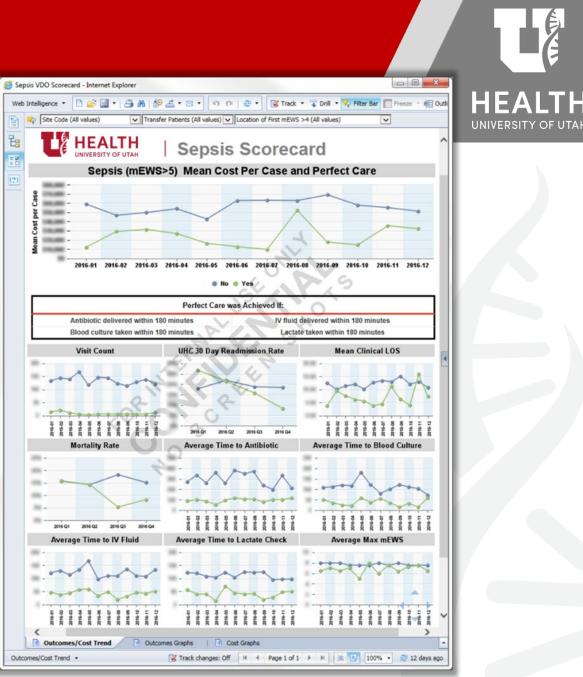
- Metrics
  - Patient was admitted to OTSS
  - No Patient Safety Indicators (PSIs)
  - Patient discharged to home health
  - Patient did not return to ED within 90 day
  - No Hospital Acquired Conditions (HACs)
  - Readmission Rate
  - Anesthesia Technique



HEALTH

### **Sepsis Scorecard**

- Metrics
  - Antibiotic delivered within 180 min
  - Blood culture taken within 180 min
  - IV fluid delivered within 180 min
  - Lactate taken within 180 min
  - Readmission rate
  - Clinical length of stay
  - Morta lity rate
  - mEWS score (modified early warning score)



### Longitudinal Patient View

illigence •	🗋 🧭 🗒 🔹	3 8 1	9 🕹 • 🖂	• • • •	æ • 🖪	Track 🔹 🤿	Drill 🔹 🎀 Filt	er Bar 📗 Fre	eze - ell (	Dutline	The second s				And a Design of	a.1			
											Nttps://boc.utah.edu/80	:E/ports : P + 📾 C 🚽 Joint Replace	topold Vicit Pro-						
	LEA	TU	1				1000				Ele Edit View Fgvantes Jaak		course transfille.						
Lé	HEA		C)	/ Hear	rt Fa	ilure	Pati	ents			Web Intelligence • 🕒 🧀 🛄 • 👌	5 M @ 2 . 0 . 0 0 .	@ • 🕼 To	ick • 🐨 Dill •	😵 Filter Bar 📋 Fireze 🔹	E Outline Reading	g - Design - 😗 -		
	UNIVERSITY	OF UTAH																	
1										Utah		Univ TY OF UTAH	Patien	h Hospitals a t Visit Profile ber.		CONFIDE	INTIAL		
ost									12.11	E 1971	Visit Information								
g									1 1		MillN Visit Number	Admit Date Admit Day Dac		and the second second		surce Admit Type Put			
á											ALL		View		ATIENT Physician/Set		PATIENT		
ota	- 1										392 - Esophapits, Gastroente		aboel		APICONG	APR ROL APS	N SOI		-
T											Digentive Disorders without M	CC							
	_										Unit History		e	🕘 🦻 https:/	boe.utah.edu/80E/port 🔎	🗸 🛪 🖒 🥜 Joint Replacement	t Visit Pro ×		
	8888888	2222222222	22222222	88888888888	222222222	12222222	2222222222	2222222	12222222			Desc U	Junit 1		gvorites Iools Help		11		
	711/20 7/4/20 7/1/20 7/1/20 7/1/20 7/1/20 7/1/20 7/1/	2022/0 2020/0 200/0 2020/0 200/0 2020/0 200/0 200/0 200/0 200/0 200/0 200/0 20/	91525 91526 92100 92400 92700 92700 92200	002898 002878 002878 002828 002828 002828 002828 002828 002828 002828 002828 002828 002828 002828 002828 002828 002828 002828 002828 002888 00088 0008888 000000	10526 01120 01120 011720 017720 017720 02720 000000 0000000 00000000	25825 257111 2511112 251111 252111 252111 252011 2022 2112 200	1192611 122222 122222 122122 122122 122122 122122	21620 21620 22600 22700 2000 20	1/9/20 1/1/2/20 1/1/2/20 1/2/1/20 1/2/20 1/2/20	10001 2005 2005 2005 2005 2005 2005 2005	UH EMERGENCY DEPT		WebI	ntelligence •	) 🤗 🖾 • (A) 🚳 (A)	0 T · B · F · B · F	• 🔀 Track • 🐺 Onli • 🍫 Fiber Ber 🔲 Freeze • 🖽	Outline Rea	reding - Desi
		a la la la la la	10.10.10.10.10.10.10.10.			18221	111111-101	12222223	Disc	harge Date	UH (SSTU) SURG SPECIALT	Y AND TRNSPLNT SRVCS	1	LA					
					_						Vitals		Es	T Z	HEALT	H	ity of Utah Hospitals and Clinics	CONFID	DENTI
N		Dir Cost I		and the second	MRN	Visit No	Admit	Dsch LC		Dir. Cost Primary Diagnosis	Weight data their	of (cm) EM EP Directorie	1.1	-	UNIVERSITY OF UT	TAH	nt Visit Profile - Detail Costs		
			4 42	Expired					Out	496 - Chronic Airway	the second se		100						
1										Obstruction Nec	Max 98.6	167.0 35.4 98	100			V	/isit Number:		
2	ID	-	6 102		-	-	-	-	Out	377.49 - Other Disorder Of	Max 98.6 Min 98.6	167.0 35.4 98 157.0 35.4 44	172			V	/isit Number.		
	ID OK		6 102 3 2	Expired	-	=	-	-		377.49 - Other Disorder Of Optic Nerve	Min 98.6		(2)		Facility Utilization	imaging Lab	Asit Number: Other Services Pharmacy S	upplies	2
2 3	ID OK MT		6 102 3 2 3 3			Ξ			Out	377.49 - Other Disorder Of Optic Nerve 799.02 - Hypoxemia	-		1	Cost	Facility Utilization			upplies	
2 3 4	ID OK MT MT	811 T	6 102 3 2 3 3 5 13	Expired		Ξ				377.49 - Other Disorder Of Optic Nerve	Min 98.6						Other Services Pharmacy S	upplies	-
2 3 4 5	ID OK MT MT UT		6 102 3 2 3 3 5 13	Expired 4 Expired		Ξ			Out	377.49 - Other Disorder Of Optic Nerve 799.02 - Hypoxemia 496 - Chronic Airway Obstruction Nec 494.0 - Bronchiectasis Without	Min 90.6 Provider Admitting	167.0 35.4 44 According D		Cost Categor	V Level 3 Grouper	Imaging Leb Level 4 Grouper	Other Services Pharmacy S	upplies Cost	QTY
2 3 4 5 6	ID OK MT UT UT		6 102 3 2 3 3 5 13 9 102 2 1 3 6	Expired 4 Expired 2 Expired		Ξ		-	Out Out Out	377.49 - Other Disorder Of Optic Nerve 799.02 - Hypoxemia 496 - Chronic Airway Obstruction Nec 494 0 - Bronchicclasis Without Acute Exacerbation	Min Stills Provider Admitting	167.0 35.4 44 Amosting 0					Other Services Pharmacy S	uppties Cost	۲۳ ۵۳۷ 27
2 3 4 5 6 7 8 9	ID OK MT UT UT NV WY		6       102         3       2         3       3         5       13         9       102         2       1         3       6         6       79	Expired 4 Expired 2 Expired Expired		=			Out Out Out	377.49 - Other Disorder Of Optic Nerve 799.02 - Hypoxemia 496 - Chronic Airway Obstruction Nec 494.0 - Bronchiectasis Without	Min Stills Provider Admitting	167.0 35.4 44 Attending 0 General Surgery General		Cost Categor	y Level 3 Grouper Medical/surgical Supplies And Devices Medical/surgical	Imaging Lab Levist 4 Grouper MedicalituryCal Supplies And Devices - Sterle Supply MedicalituryCal Supplies	Other Services Pharmacy S	Cost	27 4
2 3 4 5 6 7 8 9 10	ID OK MT UT UT NV WY		6       102         3       2         3       3         5       13         9       102         2       1         3       6         6       79         5       70	Expired 4 Expired 2 Expired Expired				-	Out Out Out Inp	377.49 - Other Disorder Of Optic Nerve 799.02 - Hypoxemia 496 - Chronic Airway Obstruction Nec 494.0 - Bronchiectasis Without Acute Exacerbation 997.31 - Ventilator Associated Pneumonia	Min 90.6 Provider Admitting General Surgery	167.0 35.4 44 Admediana D General Surgery General Cogeneis	13urs	Cost Categor Supplies Supplies	Adical/surgical Supplies And Devices Medical/surgical Supplies And Devices	Imaging Lab Level 4 Grouper Medical/surgical Supplies And Devices - Steries Supply Medical/surgical Supplies And Devices - General Classification	Other Services Pharmacy S Proc Code 2005354 - HB OXYOEN 2000159 - HB CLOO ZAPPER	-	anv 27 4
2 3 4 5 6 7 8 9 10 11	ID OK MT UT UT NV WY WY UT		6 102 3 2 3 3 5 13 9 102 2 1 3 6 6 79 5 70 5 177	Expired 4 Expired 2 Expired Expired	11111			-	Out Out Out	377.49 - Other Disorder Of Optic Nerve 799.02 - Hypoxemia 496 - Chronic Alway Obstruction Nec 494.0 - Bronchiectasis Without Acute Exacerbation 997.31 - Ventilator Associated Pneumonia 494.0 - Bronchiectasis Without	Min 98.5 Provider Admitting General Surgery Karvest 2: Detail Code	167.0 35.4 44 Attending 0 General Surgery General	13urs	Cost Categor Supplies	y Level 3 Grouper Medical/surgical Supplies And Devices Medical/surgical	Imaging Lab Level 4 Grouper Medical/surgical Supplies And Devices - Sterle Supply Medical/surgical Supplies And Devices - General	Other Services Pharmary S Proc Code 2005354 - H0 OXYOEN		27 4 6
2 3 4 5 6 7 8 9 10 11 11 12	ID OK MT UT NV WY WY UT WY		6       102         3       2         3       3         5       13         9       102         2       1         3       6         6       79         5       70         5       177         2       122	Expired 4 Expired 2 Expired Expired	111111			-	Out Out Out Inp Out	377.49 - Other Disorder Of Optic Nerve 799.02 - Hypoxemia 496 - Chronic Airway Obstruction Nec 494 0 - Bronchiectasis Without Acute Exacerbation 997.31 - Ventilator Associated Pneumonia 494.0 - Bronchiectasis Without Acute Exacerbation	Min 98.5 Provider Admitting General Surgery Carter Contections Note -	167.0 25.4 44 Amundang D General Burgery General I Cognesis Respiratory Crimical Care I	13urs	Cost Categor Supplies Supplies	Level 3 Grouper Medical/surgical Supples And Devices Medical/surgical Supples And Devices Medical/surgical Supples And Devices	Imaging Lab Level 4 Grouper Medicalisaryical Supples And Devices - Stelle Supply Medicalisaryical Supples And Devices - Clement Classification Medicalisaryical Supples And Devices - Stelle Supply	Other Services Pharmacy S Proc Code 2005354 - HB OXYOEN 2000159 - HB CLOO ZAPPER	-	217 27 4 6
2 3 4 5 6 7 8 9 10 11 11 12 13	ID OK MT UT WY WY WY UT WY CA		6       102         3       2         3       3         5       13         9       102         2       1         3       6         6       79         5       70         5       177         2       122         4       53	Expired 4 Expired 2 Expired Expired					Out Out Out Inp Out	377.49 - Other Disorder Of Optic Nerve 799.02 - Hypoxemia 496 - Chronic Alway Obstruction Nec 494.0 - Bronchiectasis Without Acute Exacerbation 997.31 - Ventilator Associated Pneumonia 494.0 - Bronchiectasis Without	Min 98.5 Provider Admitting General Surgery State Content Material 96.72 - Cont Invasive Mech Vent 96 Consecutive Hirs/	167.0 35.4 44 Admediana D General Surgery General Cogeneis	13urs	Cost Categor Supplies Supplies Supplies Supplies	Level 3 Grouper Medical/surgical Supples And Devices Medical/surgical Supples And Devices Medical/surgical Supples And Devices	Level 4 Grouper Level 4 Grouper Medicalisarycal Supples And Devces - Sterie Supples	Other Services         Pharmacy         S           Proc Code         2005354 - HB CXVGEN         2005354 - HB CXGR A           2005159 - HB CLOG ZAPPER         2019950 - HB TUBING IV 3 PORT NEEDLE FREE         2019950 - HB TUBING IV 3 PORT NEEDLE FREE           2005434 - HB TUBING IV 3 PORT NEEDLE FREE         2005434 - HB TUBING IV 3 PORT NEEDLE FREE         2005434 - HB TUBING IV 3 PORT NEEDLE FREE	-	QTV 27 4 6 4
2 3 4 5 6 7 8 9 10 11 11 12 13 14	ID OK MT UT MT NV WY UT WY CA ID		6         102           3         2           3         3           5         13           9         102           2         1           3         6           6         79           5         70           5         177           2         122           4         53           6         24	Expired 4 Expired 2 Expired Expired					Out Out Out Inp Out	377.49 - Other Disorder Of Optic Nerve 799.02 - Hypoxemia 496 - Chronic Airway Obstruction Nec 494 0 - Bronchiectasis Without Acute Exacerbation 997.31 - Ventilator Associated Pneumonia 494.0 - Bronchiectasis Without Acute Exacerbation	Min 98.5 Provider Adamtrag General Surgery C Visit - 96.72 - Cont Invasive Mech	167.0 35.4 44 Administration of the second s	13urs	Cost Categor Supplies Supplies Supplies	Level 3 Grouper Medical/surgical Supples And Devices Medical/surgical Supples And Devices Medical/surgical Supples And Devices	Imaging Lab Level 4 Grouper Medicalisaryical Supples And Devices - Stelle Supply Medicalisaryical Supples And Devices - Clement Classification Medicalisaryical Supples And Devices - Stelle Supply	Other Services         Pharmacy         S           Proc.Code         2005354 - HB CXVGEN         2005109 - HB CLOG ZAPPER           2005090 - HB TUBING I/ 3 PORT NEEDLE FREE         2019990 - HB TUBING I/ 3 PORT NEEDLE FREE	-	27 27 4 6 4 2
2 3 4 5 6 7 7 8 9 9 10 11 11 12 13	ID OK MT UT MT WY WY UT WY UT WY UT UT		6         102           3         2           3         3           5         13           9         102           2         1           3         6           6         79           5         70           5         177           2         122           4         53           6         24           3         1	Expired 4 Expired 2 Expired Expired 7					Out Out Inp Out Inp Out Out	377.49 - Other Disorder Of Optic Nerve 799.02 - Hypoxemia 496 - Chronic Alway Obstruction Nec 494.0 - Bronchiectasis Without Acute Exacerbation 97.31 - Ventilator Associated Pneumonia 494.0 - Bronchiectasis Without Acute Exacerbation 038.9 - Unspecified Septicemia	Min 98.5 Provider Advatting General Surgery C Wat Costs Wat	167.9 25.4 44 Amunding C General Burgery General General Care Respiratory Critical Care C Respiratory Critical Care C Respiratory Critical Care C	13urs	Cost Categor Supplies Supplies Supplies Supplies	Level 3 Grouper     Madcathurgical     Supples And Devices     Modicathurgical	Innaging Lab Level 4 Grouper Medicaliturgical Supples And Devices - General Classification Medicaliturgical Supples And Devices - Central Classification Medicaliturgical Supples And Devices - Steries Supples And Devices - Steries Supples And Devices - Steries Supples And Devices - Steries Supples	Other Services         Pharmacy         S           Proc Code         2005354 - HB CXVGEN         2005354 - HB CXGR A           2005159 - HB CLOG ZAPPER         2019950 - HB TUBING IV 3 PORT NEEDLE FREE         2019950 - HB TUBING IV 3 PORT NEEDLE FREE           2005434 - HB TUBING IV 3 PORT NEEDLE FREE         2005434 - HB TUBING IV 3 PORT NEEDLE FREE         2005434 - HB TUBING IV 3 PORT NEEDLE FREE	-	QTV 27 4 6 4 2 2 2
2 3 4 5 6 7 8 9 9 10 11 11 12 13 14 15 16	ID OK MT UT MT WY WY UT WY UT WY UT UT		6         102           3         2           3         3           5         13           9         102           2         1           3         6           6         79           5         70           5         177           2         122           4         53           6         24           3         1           6         65	Expired 4 Expired 2 Expired Expired 7					Out Out Inp Out Inp Out Out	377.49 - Other Disorder Of Optic Nerve 799.02 - Hypoxemia 496 - Chronic Airway Obstruction Nec 494 0 - Bronchiectasis Without Acute Exacerbation 997.31 - Ventilator Associated Pneumonia 494.0 - Bronchiectasis Without Acute Exacerbation	Min 98.5 Provider Admitting General Surgery State Content Material 96.72 - Cont Invasive Mech Vent 96 Consecutive Hirs/	167.0 35.4 44 Administration of the second s	13urs	Cost Categor Supplies Supplies Supplies Supplies Supplies	Level 3 Grouper Medical/surgical Supples And Devices Biopties And Devices Medical/surgical Supples And Devices Medical/surgical Supples And Devices Medical/surgical Supples And Devices	Imaging Lab Level 4 Grouper Medicalisaryical Supplis And Devices - Starte Supply Medicalisaryical Supples And Devices - Clearent Classification Medicalisaryical Supples And Devices - Starte Supply Medicalisaryical Supples And Devices - Starte Supply Medicalisaryical Supples And Devices - Starte Supply	Other Services         Pharmacy         S           Proc Code         2005354 - HB OXYGEN         2005354 - HB OXYGEN         2005039 - HB CLOG ZAPPER           2005039 - HB CLOG ZAPPER         2019390 - HB TUBING IV 3 PORT NEEDLE FREE         2005434 - HB TUBE FEEDING NASOGASTRIC           2005434 - HB TUBE FEEDING NASOGASTRIC         2003276 - HB CATH ANGIO 16GA X 1.25 IN         2003213 - HB CATH IV JNEYTE 180A X 1.16 IN	80 80 80 80 80	27 27 4 6 4 2 2 2
2 3 4 5 6 7 8 9 9 10 11 11 12 13 14 15 16	ID OK MT UT MT WY WY WY WY UT WY CA ID UT UT		6         102           3         2           3         3           5         13           9         102           2         1           3         6           6         79           5         70           5         177           2         122           4         53           6         24           5         1           6         65           6         95	Expired 4 Expired 2 Expired Expired 7 7 2 Expired					Out Out Out Inp Out Inp Out Inp	377.49 - Other Disorder Of Optic Nerve 799 02 - Hypoxemia 496 - Chronic Alway Obstruction Nec 494.0 - Bronchiectasis Without Acute Exacerbation 997.31 - Ventilator Associated Pneumonia 494.0 - Bronchiectasis Without Acute Exacerbation 038.9 - Unspecified Septicemia 518.84 - Acute And Chronic 518.84 - Acute And Chronic	Min 98.5 Provider Admitting General Surgery C B Visit 2 Detail Corts Visit - 96.72 - Cont Invasive Mech Vent 96 Consecutive Hirs/ more 96.71 - Cont Invasive Mech Vent - 96 Consecutive Hors 30.97 - Central Venous	167.9 25.4 44 Amunding C General Burgery General General Care Respiratory Critical Care C Respiratory Critical Care C Respiratory Critical Care C	13urs	Cost Categor Supplies Supplies Supplies Supplies Supplies	Level 3 Grouper Medical/surgical Supples And Devices Supples And Devices Medical/surgical Supples And Devices Medical/surgical Supples And Devices	Imaging Lab Level 4 Grouper Medicalitaryical Supples And Devices - States Bupply Medicalitaryical Supples And Devices - General Classification Medicalitaryical Supples And Devices - States Supply Medicalitaryical Supples And Devices - States Supply Medicalitaryical Supples And Devices - States Supply Medicalitaryical Supples And Devices - States Supply	Other Services         Pharmacy         S           Proc Code         2005354 - HB OXYOEN         2005354 - HB OXYOEN         2005059 - HB CLOG ZAPPER           2005354 - HB OXYOEN         2005059 - HB CLOG ZAPPER         2019300 - HB TUBE FEEDING NASOGASTRIC         2005434 - HB TUBE FEEDING NASOGASTRIC           2003276 - HB CATH AVIOID 160A X 1.25 IN         2003276 - HB CATH I V JNEYTE 180A X 1.36 IN         2003743 - HB CATH IV JNEYTE 180A X 1.16 IN	-	27 27 4 6 4 2 2 2 2
2 3 4 5 6 7 7 8 9 10 11 11 12 13 14 15 16 17	ID OK MT UT MT WY WY WY WY UT CA ID UT UT		6         102           3         2           3         3           5         13           6         6           79         5           5         177           2         122           4         53           6         24           3         1           6         65           6         95           7         72	Expired 4 Expired 2 Expired Expired 7 7 2 Expired 4					Out Out Out Inp Out Inp Out Inp	377.49 - Other Disorder Of Optic Nerve 799.02 - Hypoxemia 496 - Chronic Airway Obstruction Nec 404.0 - Bronchictasis Without Acute Exacerbation 997.31 - Ventilator Associated Pneumoria 494.0 - Bronchiectasis Without Acute Exacerbation 038.9 - Unspecified Septicemia	Min 98.5 Provider Admitting General Surgery Wat Const Conts Vent 96 Consecutive Hins/ more 96.71 - Cont Invasive Mech Vent 96 Consecutive Hours	167.9 25.4 44 Amunding C General Burgery General General Care Respiratory Critical Care C Respiratory Critical Care C Respiratory Critical Care C	13urs	Cost Categor Supplies Supplies Supplies Supplies Supplies	Level 3 Grouper Madical/surgical Supples And Devices Medical/surgical Supples And Devices Medical/surgical Supples And Devices Medical/surgical Surples And Devices Medical/surgical Surgical And Devices Medical/surgical	Innegling Lab Lavral 4 Grossper Medicaliturgical Supplies And Devices - Sterete Supplies And Devices - Sterete Supplies And Devices - Others Classification Medicaliturgical Supplies And Devices - Sterete Supply Medicaliturgical Supplies And Devices - Sterete Supply Medicaliturgical Supplies And Devices - Sterete Supply	Other Services         Pharmacy         S           Proc Code         2005354 - HB OXYGEN         2005354 - HB OXYGEN         2005039 - HB CLOG ZAPPER           2005039 - HB CLOG ZAPPER         2019390 - HB TUBING IV 3 PORT NEEDLE FREE         2005434 - HB TUBE FEEDING NASOGASTRIC           2005434 - HB TUBE FEEDING NASOGASTRIC         2003276 - HB CATH ANGIO 16GA X 1.25 IN         2003213 - HB CATH IV JNEYTE 180A X 1.16 IN	80 80 80 80 80	2017 27 4 6 4 2 2 2 2 2
2 3 4 5 6 7 7 8 9 9 10 11 11 12 13 14 15 16 17 18 19 9 20	ID OK MT MT UT NV WY WY WY CA ID UT UT UT UT NM		6         102           3         2           3         3           5         13           6         6           6         70           5         177           2         1           3         6           6         70           5         177           2         122           4         53           6         65           6         95           7         7           7         6           6         85           5         25	Expired 4 Expired 2 Expired Expired 7 7 2 Expired 4 2					Out Out Out Inp Out Inp Out Inp	377.49 - Other Disorder Of Optic Nerve     799.02 - Hypoxemia     496 - Chronic Airway     Obstruction Nec     494.0 - Bronchiectasis Without     Acute Exacerbation     997.31 - Ventilator Associated     Pneumonia     494.0 - Bronchiectasis Without     Acute Exacerbation     038.9 - Unspecified Septicemia     518.84 - Acute And Chronic     Respiratory Failure     518.84 - Acute And Chronic     Respiratory Failure     494.0 - Bronchiectasis Without	Min 98.5 Provider Admitting General Surgery Wat Const Context Vent S6 Consecutive Hers/ more 96.71 - Cont Invasive Mech Vent <96 Consecutive Hers/ more 96.71 - Cont Invasive Mech Vent <96 Consecutive Hours 38.97 - Central Venous Catheter Placement With	167.9 25.4 44 Amunding C General Burgery General General Care Respiratory Critical Care C Respiratory Critical Care C Respiratory Critical Care C	13urs	Cost Categori Supplies Supplies Supplies Supplies Supplies Supplies	Level 3 Groupper Middativurgiaal Supplies And Devices Middativurgiaal Supplies And Devices	Imaging Lab Level 4 Grouper Medicalisarya 3 Supples And Devices 2 Setes 8 Supples And Devices 2 Setes 8 Supples And Devices - Steres 8 Supple	Other Services         Plasmary         S           Proc Code         2005354 - HB CXVGEN         2005354 - HB CXVGEN           2005036 - HB CLOO ZAPPER         2019950 - HB TUBING IV 3 PORT NEEDLE PREE         2019950 - HB TUBING IV 3 PORT NEEDLE PREE           200543 - HB TUBING IV 3 PORT NEEDLE PREE         200543 - HB TUBING IV 3 PORT NEEDLE PREE         2005276 - HB CATH ANDIO 16GA X 1.25 IN           2003276 - HB CATH ANDIO 16GA X 1.25 IN         2003276 - HB CATH IV INSYTE 15GA X 1.16 IN         2003743 - HB CATH IV INSYTE 20GA X 1.16 IN           2019851 - HB CATH IV INSYTE 22GA X 1.16 IN         2019851 - HB CATH IV INSYTE 22GA X 1.11         202496 - HB DULER LOK ACCESS DEVICE		4 6 4 2 2 2 2 2
2 3 4 5 6 7 8 9 9 10 111 12 13 14 15 16 17 18 19 20 21	ID OK MT UT MT UT WY WY WY WY WY UT UT UT UT UT UT UT		6         102           3         2           3         3           9         102           2         1           3         6           70         5           5         70           5         70           5         70           5         177           2         123           6         24           3         1           6         65           6         95           7         72           6         25           8         103	Expired 4 Expired 2 Expired Expired 7 7 2 Expired 4 2 20 2					Out Out Out Inp Out Inp Inp Inp Out	377.49 - Other Disorder Of Optic Nerve         799.02 - Hypoxemia         496 - Chronic Airway         Obstruction Nec         494.0 - Bronchiectasis Without Acute Exacerbation         997.31 - Ventilator Associated Pneumonia         494.0 - Bronchiectasis Without Acute Exacerbation         038.9 - Unspecified Septicemia         518.84 - Acute And Chronic Respiratory Failure         518.84 - Acute And Chronic Respiratory Failure         494.0 - Bronchiectasis Without Acute Exacerbation	Min 98.5 Provider Admitting General Surgery Vest 2 Deal Code Vest 96.72 - Cont Invasive Mech Vent 96 Consecutive Hins/ more 96.71 - Cont Invasive Mech Vent - 96 Consecutive Hours 38.97 - Central Venous Catheler Placement With Guidance	167.0 35.4 44 Admondiag C General Burgery General I C Deprese Respiratory Critical Care I Respiratory Critical Care S Respiratory Critical Care S Respiratory Critical Care S	III III IIII IIIIIIIIIIIIIIIIIIIIIIIII	Cost Categori Supples Supples Supples Supples Supples Supples Supples	Level 3 closuper Madical/surgical Supples And Devices Modical/surgical Supples And Devices Modical/surgical Supples And Devices Modical/surgical Supples And Devices Modical/surgical Supples And Devices Modical/surgical Supples And Devices Modical/surgical Supples And Devices	Innegling Lab Level 4 Grouper Medicaliturgical Supplies And Devices - Steries Supply Medicaliturgical Supplies And Devices - Steries Supply Medicaliturgical Supplies And Devices - Steries Supply Medicaliturgical Supplies And Devices - Sterie Supply Medicaliturgical Supplies	Other Sensices         Plasmacy         S           Proc.Code         2005354 - H8 CAVOEN         2005054 - H8 CLOG ZAPPER           2005054 - H8 CLOG ZAPPER         2019996 - H8 TUBING IV 3 PORT NEEDLE FREE         2005454 - H8 TUBING IV 3 PORT NEEDLE FREE           2005276 - H8 TUBING IV 3 PORT NEEDLE FREE         2003276 - H8 CATH AVGIO 160A X 1.25 IN         2003276 - H8 CATH AVGIO 160A X 1.25 IN           2003276 - H8 CATH AVGIO 160A X 1.25 IN         2003743 - H8 CATH AVGIO 160A X 1.25 IN         2003743 - H8 CATH AVGIO 180A X 1.16 IN           2003981 - H8 CATH IV INSYTE 200A X 1 IN         2003046 - H8 DULICE NACESS DEVICE         2003046 - H8 DULICE NACESS DEVICE	1 1 1 1 1 1 1 1	4 6 2 2 2 2 2 4
2 3 4 5 6 7 7 8 9 10 11 11 12 13 14 15 16 17 18 19 20 21 22	ID OK MT UT MT WY WY WY WY UT CA ID UT UT UT UT UT UT		6         102           3         2           3         3           9         102           2         1           3         6           6         79           5         177           2         123           4         53           6         24           3         1           6         95           7         72           6         85           5         25           5         103           7         95	Expired 4 Expired 2 Expired Expired 7 7 2 Expired 4 2 20					Out Out Out Inp Out Inp Inp Inp Out	377.49 - Other Disorder Of Optic Nerve     799.02 - Hypoxemia     496 - Chronic Airway     Obstruction Nec     494.0 - Bronchiectasis Without     Acute Exacerbation     997.31 - Ventilator Associated     Pneumonia     494.0 - Bronchiectasis Without     Acute Exacerbation     038.9 - Unspecified Septicemia     518.84 - Acute And Chronic     Respiratory Failure     518.84 - Acute And Chronic     Respiratory Failure     494.0 - Bronchiectasis Without	Min 98.5 Provider Admitting General Surgery Wat Const Context Vent S6 Consecutive Hers/ more 96.71 - Cont Invasive Mech Vent <96 Consecutive Hers/ more 96.71 - Cont Invasive Mech Vent <96 Consecutive Hours 38.97 - Central Venous Catheter Placement With	167.9 25.4 44 Admonting C General Surgery General Common Surgery General Compress Respiratory Critical Care I Respiratory Critical Care S Respiratory Critical Care S Respiratory Critical Care S	13urs	Cost Caregor Supples Supples Supples Supples Supples Supples Supples	Level 3 Groupper Middativurgiaal Supplies And Devices Middativurgiaal Supplies And Devices	Imaging Lab Level 4 Grouper Medicalisarya 3 Supples And Devices 2 Setes 8 Supples And Devices 2 Setes 8 Supples And Devices - Steres 8 Supple	Other Services         Plasmary         S           Proc Code         2005354 - HB CXVGEN         2005354 - HB CXVGEN           2005036 - HB CLOO ZAPPER         2019950 - HB TUBING IV 3 PORT NEEDLE PREE         2019950 - HB TUBING IV 3 PORT NEEDLE PREE           200543 - HB TUBING IV 3 PORT NEEDLE PREE         200543 - HB TUBING IV 3 PORT NEEDLE PREE         2005276 - HB CATH ANDIO 16GA X 1.25 IN           2003276 - HB CATH ANDIO 16GA X 1.25 IN         2003276 - HB CATH IV INSYTE 15GA X 1.16 IN         2003743 - HB CATH IV INSYTE 20GA X 1.16 IN           2019851 - HB CATH IV INSYTE 22GA X 1.16 IN         2019851 - HB CATH IV INSYTE 22GA X 1.11         202496 - HB DULER LOK ACCESS DEVICE	1 1 1 1 1 1	4 6 2 2 2 2 2 4
2 3 4 5 6 7 7 8 9 9 10 11 11 12 13 14 15 16 17 18 19 20 21 22 23	ID OK MT UT MT WY WY WY UT UT UT UT UT UT UT UT UT		6         102           3         2           3         3           9         102           2         1           3         6           6         79           5         177           2         122           4         53           5         12           4         53           6         64           6         24           3         1           6         65           6         95           5         25           8         103           7         95           3         82	Expired 4 Expired 2 Expired Expired Expired 7 7 2 Expired 4 2 20 2 2					Out Out Out Inp Out Inp Inp Inp Out	377.49 - Other Disorder Of Optic Nerve     799.02 - Hypoxemia     496 - Chronic Alway Obstruction Nec     494.0 - Bronchiectasis Without Acute Exacerbation     997.31 - Ventilator Associated Pneumonia     494.0 - Bronchiectasis Without Acute Exacerbation     033.9 - Unspecified Septicemia     518.84 - Acute And Chronic Respiratory Failure     518.84 - Acute And Chronic Respiratory Failure     518.84 - Acute And Chronic Respiratory Failure     494.0 - Bronchiectasis Without Acute Exacerbation     494.1 - Bronchiectasis Without Acute Exacerbation     494.1 - Bronchiectasis Without Acute Exacerbation     494.1 - Bronchiectasis Without Acute Exacerbation     518.84 - Acute And Chronic	Min 98.5 Provider Admitting General Surgery C Wisk © Desil Code Wisk © Desil Code Wisk - 96.72 - Cont Invasive Mech Vent 96 Consecutive Hours 36.97 - Central Venous Catheter Placement With Guidance 96.71 - Cont Invasive Mech Vent - 96 Consecutive Hours 36.97 - Central Venous Catheter Placement With Guidance 96.71 - Cont Invasive Mech Vent - 96 Consecutive Hours 96.71 - Cont Invasive Mech Vent - 96 Consecutive Hours 96.71 - Cont Invasive Mech Vent - 96 Consecutive Hours	167.0 35.4 44 Admondiag C General Burgery General I C Deprese Respiratory Critical Care I Respiratory Critical Care S Respiratory Critical Care S Respiratory Critical Care S	rian Isur; Filar; Skill Skill Hon Nur;	Cost Caregor Supples Supples Supples Supples Supples Supples Supples Supples Supples	Level 3 Grouper Medicalisargical Supples And Devices Bispiles And Devices Medicalisargical Supples And Devices	Imaging Lab Level 4 Groups Medical/surgrad Supples And Devices - Steries Supples And Devices - Central Classification Classification Classification Classification Medical/surgrad Supples And Devices - Sterie Supples And Devices - Steries	Other Sensices         Plasmacy         S           Proc.Code         2005354 - H8 CAVOEN         2005054 - H8 CLOG ZAPPER           2005054 - H8 CLOG ZAPPER         2019996 - H8 TUBING IV 3 PORT NEEDLE FREE         2005454 - H8 TUBING IV 3 PORT NEEDLE FREE           2005276 - H8 TUBING IV 3 PORT NEEDLE FREE         2003276 - H8 CATH AVGIO 160A X 1.25 IN         2003276 - H8 CATH AVGIO 160A X 1.25 IN           2003276 - H8 CATH AVGIO 160A X 1.25 IN         2003743 - H8 CATH AVGIO 160A X 1.25 IN         2003743 - H8 CATH AVGIO 180A X 1.16 IN           2003981 - H8 CATH IV INSYTE 200A X 1 IN         2003046 - H8 DULICE NACESS DEVICE         2003046 - H8 DULICE NACESS DEVICE	1 1 1 1 1 1 1 1	4 6 2 2 2 2 2 4
2 3 4 5 6 7 7 8 9 10 11 11 12 13 14 15 16 17 18 19 20 21 22	ID OK MT UT MT WY WY WY UT UT UT UT UT UT UT UT UT		6         102           3         2           3         3           9         102           2         1           3         6           6         79           5         177           2         122           4         53           6         24           3         1           6         655           6         24           3         1           6         85           5         25           8         103           7         95           3         82	Expired 4 Expired 2 Expired Expired 7 7 2 Expired 4 2 20 2					Out Out Out Inp Out Inp Inp Inp Out	377.49 - Other Disorder Of Optic Nerve         799.02 - Hypoxemia         496 - Chronic Airway Obstruction Nec         494.0 - Bronchiectasis Without Acute Exacerbation         997.31 - Ventilator Associated Pneumonia         494.0 - Bronchiectasis Without Acute Exacerbation         033.9 - Unspecified Septicemia         518.84 - Acute And Chronic Respiratory Failure         518.84 - Acute And Chronic Respiratory Failure         494.0 - Bronchiectasis Without Acute Exacerbation         494.1 - Bronchiectasis Without Acute Exacerbation         494.1 - Bronchiectasis Without Acute Exacerbation	Min 98.5 Provider Advatting General Burgary General Burgary Second Consecutive Mick Vent 96 Consecutive Mick Vent 96 Consecutive Mick Vent 96 Consecutive Mick Vent 96 Consecutive Mours 36.371 - Cont Invasive Mech Vent 96 Consecutive Mours 96.71 - Cont Invasive Mech Vent 96 Consecutive Mech Vent 96 Consecutive Mech Vent 96 Consecutive Mech Vent 96 Consecutive Mech	167.0 25.4 44 Advanding C General Burgery General General Burgery General General Burgery General Respiratory Critical Care	Hon Nurr Long	Cost Categori Supples Supples Supples Supples Supples Supples Supples	Level 3 Grouper Medicalisurgical Supples And Devices Bispiles And Devices Medicalisurgical Supples And Devices	Imaging Lab Level 4 Grouper Medical/surgical Supples And Devices - Steries Supply Medical/surgical Supples And Devices - Steries Supply Medical/surgical Supples And Devices - Steries Supples And Devices - Ster	Other Sensices         Plasmacy         S           Proc.Code         2005354 - H8 CAVOEN         2005054 - H8 CLOG ZAPPER           2005054 - H8 CLOG ZAPPER         2019996 - H8 TUBING IV 3 PORT NEEDLE FREE         2005454 - H8 TUBING IV 3 PORT NEEDLE FREE           2005276 - H8 TUBING IV 3 PORT NEEDLE FREE         2003276 - H8 CATH AVGIO 160A X 1.25 IN         2003276 - H8 CATH AVGIO 160A X 1.25 IN           2003276 - H8 CATH AVGIO 160A X 1.25 IN         2003743 - H8 CATH AVGIO 160A X 1.25 IN         2003743 - H8 CATH AVGIO 180A X 1.16 IN           2003981 - H8 CATH IV INSYTE 200A X 1 IN         2003046 - H8 DULICE NACESS DEVICE         2003046 - H8 DULICE NACESS DEVICE	1 1 1 1 1 1 1 1 1	4 6 4 2 2 2 2 2 4 4 2

**HEALTH** 

JTAH

### Improving Value



#### Drug Costs



#### HOW UTAH CARDIOLOGY IMPROVED VALUE BY REDUCING DRUG COSTS

#### f 🍠 in 🔤

UF OUALLE

Scope is a powerful tool when changing practice. Rather than trying to revamp in one large swoop, scoping an improvement down to palatable stages can overcome resistance and lead to meaningful results for future improvement cycles. Although new improvers may feel this approach delays impact, repeated improvement cycles often lead to sustained care transformation. Dr. Theophilus Owan demonstrated this principle in his quest to improve value by standardizing anti-thrombotic medications given to patients undergoing percutaneous coronary intervention (PCI).

AUTHORS: MARI RANSCO, MA, CHRISSY DANIELS, MS, CINDY SPANGLER, ME, STEVE JOHNSON, MBA, TESHIA SORENSEN, PHARMO, THEOPHILUS OWAN, MD

#### Care Redesign





Dr. Chris Pelt led one of the first applications of the Value Driven Outcomes (VDO) tool and the University of Utah's first alternative payment model for joint replacement (the "bundle"). As a junior faculty member he volunteered for the CVO role, and we wondered what drove his early adoption of value. Accelerate's Chrissy Daniels asked him and-in true Pelt fashion-he didn't

#### WHY DO YOU CARE ABOUT IMPROVING VALUE?

It starts with my pride in the work that we do here at the university, and especially in Joint replacement. I

hat our work is as sound as it octs in the country. It's frustrating to see ratings like US News and other

#### Lab Utilization





#### Claire Ciarkowski is on a journey to reduce unnecessary labs for inpatients at University of Utah Health. As a junior faculty member, she volunteered to work on the project when it didn't sound exciting. But she is changing culture by asking the hard questions and delivering better care to patients at a lower cost. Accelerate's Mari Ransco asked what she has learned.

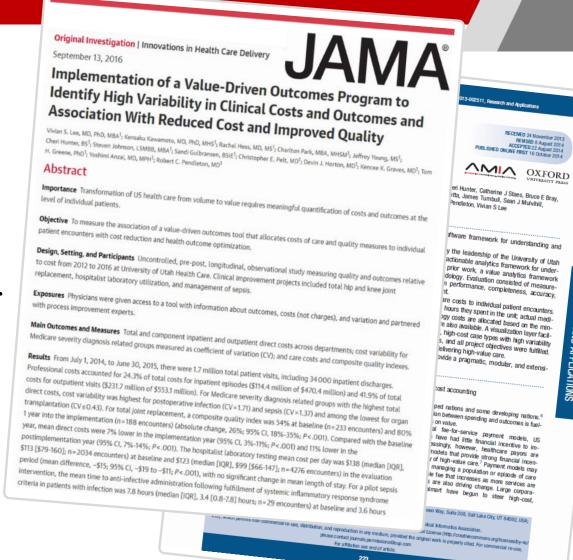
In 2015, hospitalist Claire Ciarkowski decided to take on a complicated challenge: reducing unneeded labs for inpatients. Inspired by the American Board of Internal Medicine's national campaign Choosing Wisely, the Hospitalist group started working to reduce wasteful labs a few years earlier. Unnecessary labs are a common source of suffering for patients. Before the Hospitalists began work to reduce labs, patients would often find themselves awakened before 5 a.m. for a blood draw.

Wanted: Talented, Energetic, Creative People to Work on Difficult, Boring Problems. No Perks.

"Solving some of health care's problems in practice is JUST PLAIN BORING. Dealing with them is time-consuming, equires a grasp of arcane detail, adds extra administrative irdens, and necessitate

### Making Progress

- VDO provides a necessary data foundation
- Analytics are just the beginning
- Strong cross-functional teams are needed in order to deliver accurate, actionable analytics and support
- Provider engagement requires leadership and culture



NRCH

AND

### **Delivering Value**





# Questions

