

You Expect Me to Do What?: The ACS-COT Trauma Center Verification Process

S. Rob Todd, MD, FACS

Innovations in Translating Injury Research into Effective Prevention May 24, 2013



Nothing to Disclose

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Disclaimer: This is solely my interpretation of the ACS-COT Trauma Center Verification Process.

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American College of Surgeons (ACS)

Founded in 1913



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American College of Surgeons

Inspiring Quality: Highest Standards, Better Outcomes



American College of Surgeons (ACS)

Founded in 1913

Committee on Trauma (COT)

Oldest standing committee of the ACS (1922)



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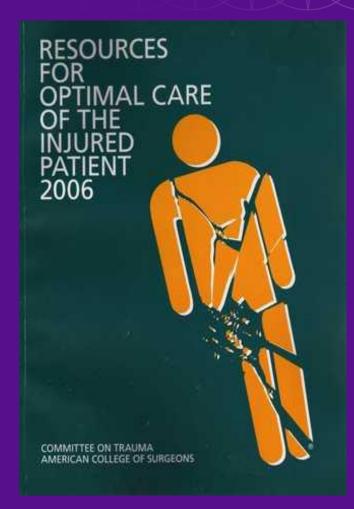
Committee on Trauma (COT)

Oldest standing committee of the ACS (1922)

Optimal Hospital Resources for Care of the Injured Patient

- First published in 1976
- Resources for Optimal Care of the Injured Patient







Established in 1987



Resources for Optimal Care of the Injured Patient. 2006.

Established in 1987

Administered by the Verification Review Committee (VRC)





Resources for Optimal Care of the Injured Patient. 2006.

Established in 1987

Administered by the Verification Review Committee (VRC)

Validates the resources for trauma care at trauma centers

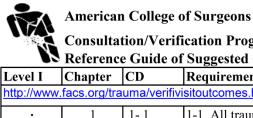
Provides an objective, external review of institutional capability and performance



- Level I, II, III, or IV
- **Consultation visit**
- Verification visit
 - Certificate valid for 3 years
- Trauma Center designation



ACS-COT Consultation/Verification Program Criteria Deficiencies



	Consulta	tion/Verifi	ication Program	
N.	Referenc	e Guide of	Suggested Classification	
Level I	Chapter	CD	Requirement by Chapter	
http://www.	facs.org/tra	iuma/verifivi	isitoutcomes.html	
•	1	1-1	1-1 All trauma centers must participate in the state and/or regional trauma system planning, development, or operation.	TYPE II
•	2	2-1	2-1 Surgical commitment is essential for a properly functioning trauma center.	TYPE I
·	2	2-2	2-2 Trauma centers must be able to provide on their campus the necessary human and physical resources to properly administer acute care consistent with their level of verification.	TYPE II
	2	2-3	2-3 A Level I trauma center must meet admission volume performance requirements (one of the following): a) Admit at least 1200 trauma patients yearly, b) 240 admissions with an Injury Severity Score (ISS) of more than 15, c) An average of 35 patients with an ISS of more than 15 for the trauma panel surgeons (general surgeons who take trauma all).	TYPE I
·	2	2-4	2-4 The trauma director must have responsibility and authority for determining each general surgeon's ability to participate on the trauma panel based on an annual review.	TYPE II

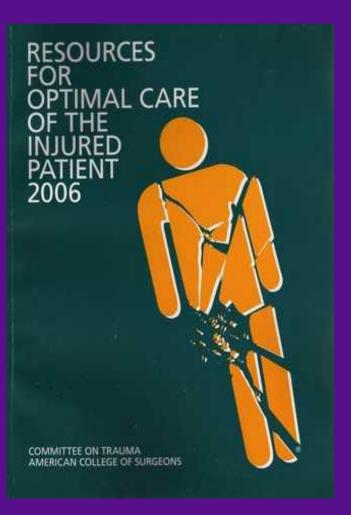


ACS-COT Consultation/Verification Program Type I Criteria Deficiencies

61 in total

Required at the time of the site visit

Zero allowed





Resources for Optimal Care of the Injured Patient. 2006.

ACS-COT Consultation/Verification Program Type II Criteria Deficiencies

157 in total

Required at the time of the site visit, yet are less urgent criteria

Zero allowed

If three or less are identified, 1 year certificate of verification is issued





Preparation and Achievement of American College of Surgeons Level I Trauma Verification Raises Hospital Performance and Improves Patient Outcome

Stephen DiRusso, MD, PhD, Cheryl Holly, RN, PHD, Ranishanker Kamath, MD, Sara Cuff, RN, Thomas Sullivan, BS, Helga Scharf, Ted Tully, BA, Peter Nealon, BA, and John A. Savino, MD

J Trauma. 2001;51:294-300



Decreased overall mortality

Decreased Emergency Center mortality

Decreased mortality in the severely injured Injury Severity Score (ISS) > 30

Decreased hospital length of stay

A trend toward decreased intensive care unit (ICU) length of stay



Commitment to COT Verification Improves Patient Outcomes and Financial Performance

Paul M. Maggio, MD, MBA, Susan I. Brundage, MD, MPH, Tina Hernandez-Boussard, PhD, and David A. Spain, MD

J Trauma. 2009;67:190-5



- Increased admissions
- Increased inter-facility transfers
- Increased patient acuity
- Decreased mortality
- A trend toward decreased ICU length of stay
- Increased contribution to margin, net profit, and revenues



New York State Trauma Centers Why Pursue ACS-COT Verification?

The 1990 New York State trauma center regulations are old and out-of-date

The New York State Department of Health has decided to adopt the ACS-COT standards and verification process for the state's trauma system



New York State Trauma Centers Why Pursue ACS-COT Verification?

Nirav R. Shah, M.D., M.P.H. Commissioner Sue Kelly Executive Deputy Commissioner

March 26, 2013 DAL #13-12

Dear Administrator:

As you are aware, the Department has decided to adopt the American College of Surgeon's Committee on Trauma (ACS-COT) standards and verification process for the State's trauma system. The ACS-COT standards allow for four levels of trauma center. Level three and four trauma centers are community hospitals which dedicate their resources to receiving and stabilizing severely injured patients and then transfer those patients to level one and two centers while continuing to care for less severely injured patients. Level three and four trauma centers provide necessary resuscitation and initial care in rural areas where, because of geography, patients cannot be immediately transported to level one or two centers.

NEW YORK state department of HEALTH

You have expressed an interest in becoming a newly designated trauma center. If you intend to pursue designation as a level one, two or three trauma center, please contact Linda Tripoli, Trauma Program Manager, Bureau of Emergency Medical Services, at (518)402-0996, Ext. 2 or at <u>Imt01@health.state.ny.us</u> by **May 10, 2013** so that we can include you in the overall State trauma plan. Once you express your intent, you should begin attending your regions Trauma Advisory Committee meetings (if you do not already do so) and the State Trauma Advisory Committee meetings (the dates of which are posted to the trauma web page). You should also subscribe to the group trauma e-mail list by contacting Ms. Tripoli.



ACS-COT Consultation/Verification Program Pre-Hospital Trauma Care

3 Criteria Deficiencies (CD)

Bypass protocol development (CD 3-1, CD 3-2)



Resources for Optimal Care of the Injured Patient. 2006.

ACS-COT Consultation/Verification Program Pre-Hospital Trauma Care

3 Criteria Deficiencies (CD)

Bypass protocol development (CD 3-1, CD 3-2)

"Trauma Diversion

- 1. May be requested for Facility issues (i.e. power failure, computed tomography [CT] scanners non-functional, operating rooms non-functional, etc.).
- 2. May be requested when the Trauma Team is unable to care for additional critical patients.
- 3. The trauma surgeon must be involved in the decision regarding Trauma Diversion."



ACS-COT Consultation/Verification Program Pre-Hospital Trauma Care

3 Criteria Deficiencies (CD)

- Bypass protocol development (CD 3-1, CD 3-2)
- Pre-hospital care protocols and patient safety programs (CD 3-3)



"Although there is no precise prescription for performance improvement and patient safety (PIPS), the American College of Surgeons Committee on Trauma (ACS-COT) requires a structured effort by a trauma program to demonstrate a continuous process for improving care for injured patients."



26 Criteria Deficiencies

- A highly functional PIPS process
- Two standing committees:
 - Trauma Peer Review Committee
 - Trauma Program Operational Process Performance Committee
- Trauma Program authority to rectify issues
- Loop closure



Trauma Peer Review Committee

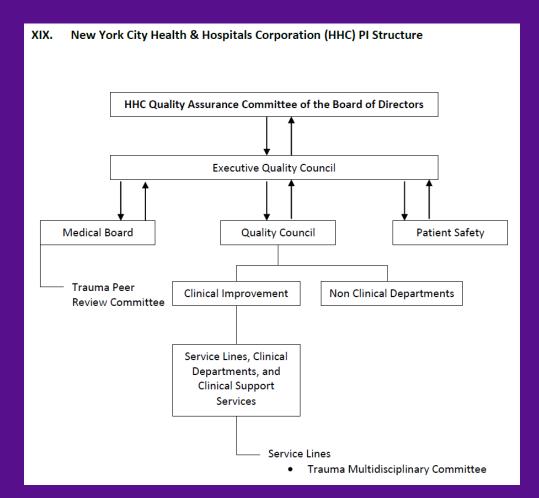
- Multidisciplinary committee to improve the overall care of injured patients (CD 16-19)
- A minimum of 50% attendance by required personnel (CD 16-20)
- Dissemination of information with documentation (CD 16-22, CD 16-23)



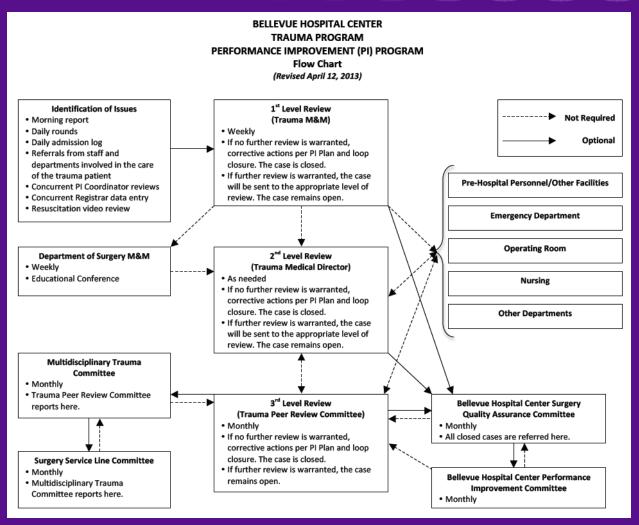
Trauma Program Operational Process Performance Committee

- A process to address trauma program operational issues (CD 16-15)
- Review of operational issues with appropriate corrective actions (CD 16-16, CD 16-17, CD 16-18)









NYU School of Medicine

		BELLEVUE HOSPITAL CENTER TRAUMA PROGRAM Resident M&M Case Review (Level 1 Review) (Review d December 18, 2012)									
Patient Name:				MR#:							
Reason for Preser	itation:										
ED Admission Dat	e/Time:			Hospital Disc	harge Date:						
Admitting Attend	ing:			ISS:							
Age:	Gender: M	F Trauma	Activation Level:	1 2	3 N/A						
Brief Summary:											
Diagnoses:											
	Heart Rate	Blood Pressure	Respiratory Rate	O ₂ Sats	Temperature	GCS (E/V/M)					
Vitale		biood riessure	Respiratory Rate	O ₂ Jats	remperature	003(0/4/14)					
Pre-Hospital											
Pre-Hospital ED Arrival											
Pre-Hospital ED Arrival ED Departure											
Pre-Hospital ED Arrival ED Departure Treatment during		tion: (circle all that app			L Control V						
Pre-Hospital ED Arrival ED Departure Treatment during Intubation	Crico	othyroidotomy	Chest Tube(s)	R		enous Access					
Pre-Hospital ED Arrival ED Departure Treatment during Intubation ED Thoracoto	Crico my FAS	othyroidotomy T + -	Chest Tube(s) DPL + -	R	T-Pod	enous Access					
Pre-Hospital ED Arrival ED Departure Treatment during Intubation ED Thoracoto Tourniquet: _	Crico my FAS	othyroidotomy	Chest Tube(s) DPL + -	R		enous Access					
Pre-Hospital ED Arrival ED Departure Treatment during Intubation ED Thoracoto Tourniquet: _	Crico my FAS	othyroidotomy T + -	Chest Tube(s) DPL + -	R	T-Pod	enous Access					
Intubation ED Thoracoto	Crico my FAS	othyroidotomy T + -	Chest Tube(s) DPL + -	R	T-Pod	enous Access					
Pre-Hospital ED Arrival ED Departure Treatment during Intubation ED Thoracoto Tourniquet: _ Total Slot Time: _	Crico my FAS: ory/Radiographic	othyroidotomy T + -	Chest Tube(s) DPL + - NGT / OGT		T-Pod Foley	enous Access					
Pre-Hospital ED Arrival ED Departure Treatment during Intubation ED Thoracoto Tourniquet: _ Total Slot Time: _ Pertinent Laborat Disposition from I	Cricc my FAS: ory/Radiographic	othyroidotomy T + - c Studies:	chest Tube(s) DPL + - NGT/OGT	IR	T-Pod Foley Other:						
Pre-Hospital ED Arrival ED Departure Treatment during Intubation ED Thoracoto Tourniquet: _ Total Slot Time: _ Pertinent Laborat Disposition from I	Cricc my FAS: ory/Radiographic	othyroidotomy T + - c Studies: SICU War	chest Tube(s) DPL + - NGT/OGT	IR	T-Pod Foley Other:						
Pre-Hospital ED Arrival ED Departure Treatment during Intubation ED Thoracoto Tourniquet: _ Total Slot Time: _ Pertinent Laborat Disposition from I	Cricc my FAS: ory/Radiographic	othyroidotomy T + - c Studies: SICU War	chest Tube(s) DPL + - NGT/OGT	IR	T-Pod Foley Other:						

											ate: PEN	CLOSED
				Atte		LLEVUE HOSPITA TRAUMA PROG M&M Case Review (Revised December 1:	RAM v (Le	vel 1 Review)				
atient	Name:						_	MR#:			_	
Chart P	resent:	Yes	No		Ch	art Reviewed by:						
Comme	ents:											
ompli	cation(s): (ch	eck all th	at annlu)									
	Abscess		C diff co			Chest-tube related		Death		Dec	ubitus	
	DVT		Eviscera	ation		latrogenic		Missed injury		PE		
	Pneumonia		Post-op	blee	ding 🗖	Readmission		Sepsis		Unj	olanned OF	t return
	UTI: Foley	- Y	N			Wound infection		Other:				
system	Issue(s): (ch	eck all the	at apply)									
	Consultant	care dela	y		Delay i	n diagnosis 🛛 🗖	Del	ay in intubation			Delay wit	h OR
	Nursing do	cumentat	ion		Other:							
Determ	ination:				Preven	tability:						
	Disease-rel					Unanticipated comp						
	Provider-re					Anticipated complic					vement	
	System-rela					Complication without						
	Cannot be	determine	ed			Unanticipated mort						
						Anticipated mortalit					nent	
						Mortality without o	oport	unity for improve	ment			
udgme						ive Action:						
	Acceptable	kasan	lane			Counseling Education						
	Acceptable, Defer to pe				_	Education Guideline/Protocol						
	Unacceptal					Peer review commit	too n	resentation				
	Unknown					Privilege/Credential						
-	STREEDWIT					Process improveme						
						Resource enhancem						
						Trend						
						Unnecessary						
						Other:						
Refer to	o:											
	Departmen	tal M&M			Trauma	Medical Director		Trauma Pee	r Rev	/iew	Committee	
	Nursing				Surgery	PI Committee						
	Other:											
	atus: (Open	Closed									
Case St		Yes	No	N/A								
	Donation:	165										
		No	N/A		Date:		Do	findings support	case	revie	w? Yes	No

information contained herein is privileged and intended solely for quality assurance purposes. It is confidential and protected by Public Health Law 2805-j, k and I and Education Law 6527.



			BELLEVUE HOSPITAL CENTER
	-		TRAUMA PROGRAM
	Trau	ma Ivi	edical Director Review (Level 2 Review) (Revised December 18, 2012)
Patient	Name:		MR#:
Reasor	for Review:		
Comm	ents:		
Detern	nination:	Prev	entability:
	Disease-related		 Unanticipated complication with opportunity for improvement
	Provider-related		Anticipated complication with opportunity for improvement
	System-related		 Complication without opportunity for improvement
	Cannot be determined		 Unanticipated mortality with opportunity for improvement
			 Anticipated mortality with opportunity for improvement
			 Mortality without opportunity for improvement
Judgm	ent:	Corr	ective Action:
	Acceptable		Counseling
	Acceptable/reservations		Education
	Defer to peer review		Guideline/Protocol
	Unacceptable		Peer review committee presentation
	Unknown		Privilege/Credentialing action
			Process improvement team
			Resource enhancement
			Trend
			Unnecessary
D. (Unnecessary Other:
Refer t			Other:
	o: Trauma Peer Review Committee Other:		Other:

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Tra	BELLEVUE HOSPITAL CENTER TRAUMA PROGRAM auma Medical Director Review (Level 2 Review) (Revised December 18, 2012)	Тг	BELLEVUE HOSPITAL CENTER TRAUMA PROGRAM auma Peer Review Committee (Level 3 Review) (Revised December 18, 2012)
Patient Name:	MR#:	Patient Name:	MR#:
Reason for Review:		Chart Present: Yes No Reason for Review:	Chart Reviewed by:
Comments:			
		Comments:	
Determination:	Preventability:	Determination:	Preventability:
Disease-related	 Unanticipated complication with opportunity for improvement 	Disease-related	 Unanticipated complication with opportunity for improvement
Provider-related	Anticipated complication with opportunity for improvement	Provider-related	Anticipated complication with opportunity for improvement
System-related	 Complication without opportunity for improvement 	System-related	 Complication without opportunity for improvement
Cannot be determined	 Unanticipated mortality with opportunity for improvement 	Cannot be determined	 Unanticipated mortality with opportunity for improvement
	Anticipated mortality with opportunity for improvement		Anticipated mortality with opportunity for improvement
	 Mortality without opportunity for improvement 		Mortality without opportunity for improvement
Judgment:	Corrective Action:	Judgment:	Corrective Action:
Acceptable	Counseling	Acceptable	Counseling
Acceptable/reservations	Education	Acceptable/reservations	Education
 Defer to peer review 	Guideline/Protocol	Unacceptable	Guideline/Protocol
Unacceptable	Peer review committee presentation	Unknown	Peer review committee presentation
Unknown	Privilege/Credentialing action		Privilege/Credentialing action
	Process improvement team		Process improvement team
	Resource enhancement		Resource enhancement
	Trend		Trend
	Unnecessary		Unnecessary
	Other:		Other:
Refer to:		Refer to:	
Trauma Peer Review Committee	ee 🛛 Nursing 🔲 Surgery PI Committee	Nursing Surgery PI Co	ommittee
Other:		Other:	
Case Status: Open Closed		Case Status: Open Closed	
Attending Name:	Attending Signature: Date:	Attending Name:	Attending Signature: Date:

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Trauma research and scholarly activity are some of the capabilities that distinguish a Level I Trauma Center from other trauma centers

These endeavors should be balanced and reflect the diverse aspects of trauma care

There are two methods to fulfill the research and scholarship criteria for Level I verification

6 Criteria Deficiencies



Method One:

- A minimum of 20 peer-reviewed articles in a threeyear period (CD 19-1)
- Must result from work at the trauma center (CD 19-2)
- Of the 20 articles, at least one must be authored or coauthored by the general surgery trauma team, and at least one each from three of the following: neurosurgery, emergency medicine, orthopedics, radiology, anesthesia, and rehabilitation (CD 19-3, CD 19-4)



Method Two:

- A minimum of 10 peer-reviewed articles in a threeyear period (CD 19-1)
- Must result from work at the trauma center (CD 19-2)
- Of the 20 articles, at least one must be authored or coauthored by the general surgery trauma team, and at least one each from three of the following: neurosurgery, emergency medicine, orthopedics, radiology, anesthesia, and rehabilitation (CD 19-3, CD 19-4)



Method Two:

- Of the seven following trauma-related scholarly activities, four must be met:
 - Leadership in major trauma organizations
 - Peer-reviewed funding for trauma research
 - Evidence of dissemination of knowledge
 - Display of scholarly application of knowledge
 - Visiting professorships or invited lectures
 - Support of resident-participation in such activities
 - Mentorship of residents and fellows



	Summary Form for Research Articles Submitted for Site Visit
trauma trauma those a	complete this "Summary Form for Research Articles" for each peer-reviewed article your program would like considered for the trauma research requirement for your Level I center site review. Attach the completed form to the corresponding article, and have irticles (with research forms attached) available at the time of the site visit in order for the reviews to complete this portion of the review.
1.	Intere Year Time Period for Research Articles: The trauma program must choose one of the two following options as the 3-year time period during which all articles must have been published. Please pick one of the two options, and complete the time period: a
2.	Name of Article:
3.	Date of Publication:
4.	Is the article from a peer-reviewed journal (circle yes or no) - YES NO If "NO" – please explain:
5.	Is the article primarily an "Adult" or "Pediatric" trauma article (circle one): <u>Adult</u> <u>Pediatric</u>
6.	Is this article from work related to your trauma center (circle one): YEs NO If, "YES" – please explain:
7.	The author/co-author(s) is from which discipline(s):
8.	If the author/co-author is not from one of the disciplines above, are they from: NursingSurgical Subspecialist Other



ACS-COT Consultation/Verification Program Disaster Planning and Management

The ACS believes the surgical community has an obligation to actively participate in this process

4 Criteria Deficiencies

- Must satisfy The Joint Commission requirements (CD 20-1)
- A surgeon from the trauma panel must sit on the committee (CD 20-2)
- Hospital drills at least every six months (CD 20-3)
- A hospital disaster plan (CD 20-4)



ACS-COT Consultation/Verification Program Organ Procurement Activities

4 Criteria Deficiencies

- An established relationship with a recognized organ procurement organization (OPO) (CD 21-1)
- A written policy for triggering OPO notification (CD 21-2)
- The organ donation rate must be reviewed by the PIPS process (CD 21-3)



Bellevue Hospital Center Trauma Program Organ Procurement Activities

	Donor		Organ Donation Activity and Porformance Referral Rate Consent Rate											e C	onversion	Rate	ΟΤΕ			
A brade Lik Deparation	rk		Organ Donation Activity and Performance										100 %		50 %		45 %		3.6	
Bellevue Hospital	I Center																			
Month	Total Referred	MSRs	Total Donors	BD Donors	DCD Donors	Total CNRs	DCD CNRs	Family Decline	ME Decline	Missed BD	Missed DCD	Referral Rate	Consent Rate	Conversion Rate	Timely	Timely Rate	DSA	DSA Rate	Organ Tx	
2012-January	2	2	0	0	0	0	0	2	0	0	0	100 %	0 %	0 %	1	50 %	2	100 %	0	
2012-February	4	0	0	0	0	1	0	0	0	0	0	NaN	100 %	NaN	1	100 %	1	100 %	0	
2012-March	5	4	1	1	0	0	0	3	0	0	0	100 %	25 %	25 %	4	80 %	4	100 %	2	
2012-April	4	3	1	1	0	0	0	2	0	0	0	100 %	33 %	33 %	3	100 %	3	100 %	3	
2012-May	5	3	2	2	0	0	0	1	0	0	0	100 %	67 %	67 %	2	67 %	3	100 %	8	
-	-				-	-	-			-	-									
2012-June	2	1	0	0	0	1	0	1	0	0	0	100 %	50 %	0 %	2	100 %	2	100 %	0	
2012-July	3	1	1	1	0	0	0	0	0	0	0	100 %	100 %	100 %	1	100 %	1	100 %	1	
2012-August	7	4	3	3	0	0	0	1	0	0	0	100 %	75 %	75 %	4	80 %	3	75 %	14	
2012-September	4	2	1	1	0	0	0	1	0	0	0	100 %	50 %	50 %	1	50 %	2	100 %	5	
2012-October	2	0	0	0	0	0	0	0	0	0	0	NaN	NaN	NaN	0	0 %	0	NaN	0	
		-	-	-			-	-	-	-					-		-			
Year																				
	38	20	9	9	0	2	0	11	0	0	0	100 %	50 %	45 %	19	76 %	21	95 %	33	
*All numbers are subje	ect to change upo	on reconiciliati	on and medica	al record review.																
Field		Definition	า																	
ME		Medical E																		
BD		Brain Dea																-		
Medically Suitable Ref	errals (MSRs)			line + ME Decli		isible Deces												-		
Total Donors Referral Rate				rs) or (Eligible D ME Docline) ((-	Decline+BD Mis	cod Deforral										-		
DCD							rom a donor who			nned heating inr	eviously refe	med to as non	heart heating	or asystolic dop	ation			-		
Consent Rate				(All Donors + A				se neart nas	ineversibly ste	pped beauig, pi	eviously relea	fied to as non-	rican-beating	or asystolic don	auon.			-		
Conversion Rate				+ Family Declir														1		
OTPD			ansplanted pe				/											1		
CNR		-	not recovered																	
NaN		Not Appli	cable / Undefir	ned / No Data																
Timely		based on	referrals made	e prior to the 1st	brain death n	ote.														
Timely Rate		Timely ref	ferrals / All refe	errals with at lea	st 1 brain dea	th note														
DSA				he Donation Ser		n Effective R	equest Process											-		
DSA Rate		DSA / All	approaches fo	r organ donation	ı															



ACS-COT Consultation/Verification Program Organ Procurement Activities

4 Criteria Deficiencies

- An established relationship with a recognized organ procurement organization (OPO) (CD 21-1)
- A written policy for triggering OPO notification (CD 21-2)
- The organ donation rate must be reviewed by the PIPS process (CD 21-3)
- An established brain death criteria... (CD 21-4)



ACS-COT Consultation/Verification Program Conclusion

For the betterment of our injured patients

- Many Criteria Deficiencies
- Be resourceful and creative, yet don't reinvent the wheel
- A team effort



http://www.facs.org/trauma/verificationhosp.html



