Quality Improvement Tools to Manage Organ Donation Processes: an Instrumental Case Study

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Background

Quality improvement tools are well-established in healthcare but still evolving in emerging areas like organ donation programs. Despite Brazil's prominence in organ transplantation, few initiatives focus on continuous improvement. Research has highlighted family refusal as a cause of organ scarcity, driven by cultural and religious factors. Inevitable healthcare failures should be studied for future prevention. Quality tools aid in effective intervention, defined as simple strategies to enhance processes, reduce errors, cut costs, and enhance patient safety.

Aim → To describe an experience report on the analysis of a nonconformity in the organ donation process and development of a quality control tool for the stages of the organ donation process.

Methods

We conducted an exploratory descriptive study using Robert Yin's instrumental case study method, Ishikawa diagram, and brainstorming to analyze an organ donation non-conformity and propose a quality improvement tool. The instrumental case study provides insights into a specific event's broader context. We also used the Ishikawa diagram to identify causes and brainstorming to generate solutions. These analyses informed the development of a checklist as a quality tool for organ donation process improvement.

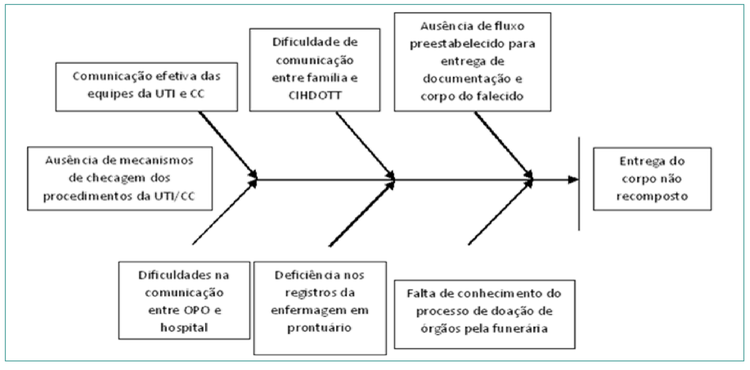

Figure 1. Cause and effect diagram – São Paulo, Brazil.

Results

Paciente:	Idade:			RH:
Checklist do processo de doação de órgãos/tecidos (marque com X)				
Fase do Processo	**itens**	**Realizado?**		
Notificação de ME	**Responsável**	**Sim**	**Não**	**Observações**
Convocar os familiares para notícia de gravidade	Equipe Hospital			
Conversar com familiar sobre gravidade e teste de ME	Médico			
Realizar 1° teste ME	Médico			
Comunicar OPO	CIHDOTT			
Solicitar exame complementar	OPO			
Realizar teste de apneia	Médico			
Convocar familiar para exame complementar	Equipe Hospital			
Verificar protocolo de ME devidamente preenchido (2 médicos, 2 exames clínicos e exame complementar no tempo proposto)	CIHDOTT, OPO			
Preencher encaminhamento de cadáver (Declaração de óbito (DO) ou guia IML)	Médico			
Informar familiares sobre o óbito	Médico			
Realizar entrevista familiar após notícia de óbito	CIHDOTT, OPO			
Doação positiva				
Solicitar Tipagem Sanguínea (LOCAL)	Médico			
Agendamento de centro cirúrgico/reserva de materiais	Equipe Hospital			
Avaliação clínica (dados para OPO)	**Dados da Coleta**			
Coleta de exames conforme as particularidades dos órgãos a serem transplantados	**Órgão**	**Sim**	**Não**	**Observações**
	Coração			
	Fígado			
	Rim			
	Pâncreas			
	Pulmão			
DVA	_____ ml/h			
Hemocultura 2 amostras	_____ Data: __/__/__			
Urocultura	_____ Data: __/__/__			
Urina I	_____ Data: __/__/__			
HMC	_____ Data: __/__/__			
ATB	_____ Início: __/__/__			
Débito Urinário e Balanço Hídrico 24h	DU_____ml BH_____ml Data:__/__/__			
RX TÓRAX	_____ Data: __/__/__			
ECG	_____ Data: __/__/__			
GASOMETRIA FIO_2 A 100%	_____ Data: __/__/__			
Obs.:				
Prontuário do Paciente para encaminhar ao CC	**Responsável**	**Sim**	**Não**	**Observações**
Protocolo de ME assinado e carimbado (original) +Gasometrias	CIHDOTT			
Termo de doação **(original)**	CIHDOTT			
Termo de entrevista familiar carimbado pelo entrevistador (original)	CIHDOTT			
Encaminhamento de cadáver (guia de IML ou atestado de óbito) devidamente preenchido	CIHDOTT			
Aviso cirúrgico	Equipe Enfermagem			
Encaminhamento do corpo ao necrotério	**Responsável**	**Sim**	**Não**	**Observações**
Tipo de encaminhamento de óbito	Enfermeiro Hospital			IML ( ) D.O. (.)
Preparo do corpo: CC= Retirada de todos os dispositivos, higienização do corpo, tamponamento, curativo fechado da incisão cirúrgica	Eq Enfermagem CC			
Acompanhamento da entrega do corpo à família	CIHDOTT, Equipe Hospital			
Documentos para encaminhar para internação	**Responsável**	**Sim**	**Não**	**Observações**
Encaminhamento de cadáver (guia de IML ou atestado de óbito)	Equipe Hospital			
Gratuidade funeral carimbado pelo enfermeiro	OPO, CIHDOTT			

Figure 2. Checklist developed – São Paulo, Brazil.

Description of the Non-Conformity: A middle-aged male patient with a diagnosis of acute coronary syndrome (ACS), following examinations, brain death was confirmed, and family consent for organ donation was obtained. The surgery proceeded without issues. However, the family found the body unprepared for burial due to a lack of communication and proper handover.

Analysis of the Non-Conformity: The Intra-hospital Transplant Commission (CIHDOTT) held an extraordinary meeting to discuss the events leading to the body preparation failure. Professionals from different stages of the donation process were consulted, and communication flows were examined, including formal and informal aspects. Official documents, such as patient records, were also reviewed. A cause-and-effect diagram (Figure 1) revealed inconsistencies between the described and executed processes, pinpointing communication weaknesses among stakeholders. CIHDOTT and Organ Donation Coordinator (ODC) proposed a process verification tool (checklist) to prevent similar failures in the future, given that communication issues were the primary concern.

Development of the Checklist for Process Improvement: The results of the analysis informed the development of the organ donation process checklist (Figure 2). This tool was based on researcher experience, relevant Brazilian legislation, evidence-based donor maintenance protocols, and input from expert nurses serving as intra-hospital ODCs. After content analysis, no changes were proposed. The checklist underwent a pilot test during an actual organ donation process to evaluate its functionality and effectiveness in mitigating potential process failures. Following approval in the pilot test, the checklist was applied to all donation processes and integrated into the medical records of potential donors.

Conclusion

In this experience report, we describe an issue in organ and tissue donation, analyzed it, and developed a checklist to prevent future failures. Healthcare discrepancies occur frequently and should be constructively analyzed to improve quality rather than punitive actions.

References

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