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QRA Department · Nevada Donor Network

Interpreting Donor Microbiology & Serology: A Case-Based Approach to Infectious Risk Assessment & Post-Procurement Reporting

to Transplant Centers — Octavia Wyche, Organ Quality Coordinator · owyche@nvdonor.org · March 26, 2026

BACKGROUND
Why This Matters

Bacteria and fungi are everywhere. In organ donation, what lives in a donor's body can mean the difference between a life saved and a life lost.

Communication delays and reporting failures have been directly linked to donor-derived transmission events — with measurable impact on recipient morbidity and mortality.

> *"Post-procurement infectious disease reporting demands urgent attention. The goal of this study is to model what is working — and make it transferable."*

This work focuses on post-procurement serology for endemic and emerging pathogens that reflect the geographic and epidemiologic diversity of today's donor pool:

Strongyloides **stercoralis**	Coccidioides **spp.**
Histoplasma **capsulatum**	Trypanosoma **cruzi (Chagas)**

METHODS
Study Design

A retrospective case review of more than 10 donor cases, each selected because it told a story worth telling:

- Cultures that raised questions and organisms that demanded context
- Cases spanning bacterial, fungal, and parasitic findings
- Analysis of infectious risk stratification and internal quality workflows
- Evaluation of reporting timelines, communication methods, and alignment with OPTN regulatory and accreditation standards

FINDINGS
Results at a Glance

100+ DONOR CASES REVIEWED ACROSS BACTERIAL, FUNGAL & PARASITIC FINDINGS

100% POST-PROCUREMENT RESULTS COMMUNICATED WITHIN OPTN-REQUIRED TIMEFRAMES

100% CASES REQUIRING THE HIGHEST DEGREE OF INTERPRETIVE JUDGMENT

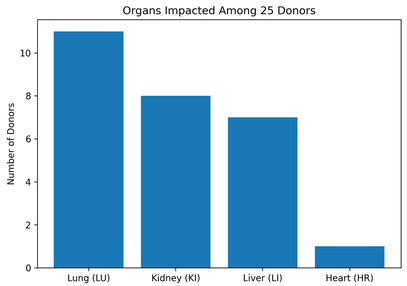
> *"The cases revealed not where the system broke down — but where it demanded the most from quality staff."*

Reporting decisions were rarely straightforward. Three variables drove every judgment call:

- **The organism mattered.** Species, burden, and clinical context shaped risk stratification at every step.
- **The organ mattered.** The same organism carried different weight depending on the transplanted organ and recipient immunosuppression.
- **Sometimes the organism mattered regardless of the organ.** Certain pathogens - particularly Chagas and endemic fungi - demanded action across all organ types.

Despite this complexity, structured internal workflows supported accurate risk stratification and clear transplant center communication across every case reviewed.

* Full case data, organism findings, and reporting timelines available in the linked handout — scan the QR code.



CONCLUSIONS
What We Learned

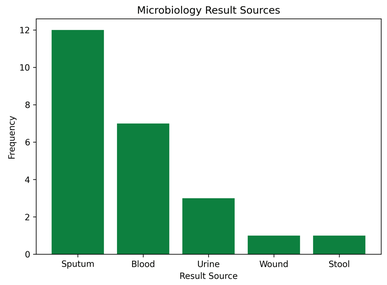
When quality teams approach donor microbiology and serology **not as a checklist but as a discipline of interpretation**, the entire transplant ecosystem benefits.

> *"Standardizing escalation pathways, reporting language, and documentation practices does more than satisfy regulators — it builds trust between OPOs and transplant centers."*

TRANSFERABLE TAKEAWAYS
For Your Quality Team

- **Standardize escalation pathways** so no result sits without a clear owner and timeline.
- **Develop reporting language templates** that communicate risk level — not just result — to transplant centers.
- **Apply geographic epidemiology** to serology interpretation; endemic pathogens require context your lab report won't provide.
- **Document interpretive rationale**, not just outcomes, to support both regulatory review and institutional learning.
- **Treat OPTN policy alignment as a floor**, not a ceiling — evolving guidance demands active surveillance.

The cases presented here offer grounded, transferable guidance for any quality or clinical team ready to sharpen how they see, interpret, and communicate infectious risk.



SEROLOGY AND MICROBIOLOGY CULTURE RESULTS
Post-Procurement Serologies

Serology and Microbiology Culture results: Serology results for endemic pathogens were reviewed and reported per OPTN policy across all 25 donors in this study pool.

Coccidioides spp.
1 of 25 donors - OCCURRED

Dissemination risk; IgM vs. IgG interpretation critical. Positive serology requires differentiation between past exposure and active disease before organ-specific risk can be assigned. SW United States

Strongyloides stercoralis
0 of 25 donors - Not Detected

Hyperinfection risk in immunosuppressed recipients. Positive serology does not equal active infection; clinical history essential.
Tropics · SE US · Immigrants

Histoplasma capsulatum
0 of 25 donors - Not Detected

Serology may be negative despite active disease. Urine antigen testing preferred when donor is symptomatic or from endemic region. Ohio/Mississippi River Valley

Trypanosoma cruzi (Chagas)
0 of 25 donors - Not Detected

Mandatory reporting regardless of organ type. Lifelong seropositivity in treated donors; reactive result always requires transplant center notification. Latin America · US-born risk

MICROBIOLOGY
Compiled Organisms

Bacteria · Fungi / Yeast · Mixed / Flora

Staphylococcus aureus (all strains)	6×
Pseudomonas aeruginosa	3×
Candida albicans	2×
Candida glabrata	2×
Citrobacter freundii	2×
Coagulase-neg. Staphylococcus	1×
Klebsiella (Enterobacter) aerogenes	1×
Salmonella enterica Enteritidis	1×
Stenotrophomonas maltophilia	1×
Gram-pos. cocci (unspecified)	1×
Gram-neg. bacilli (unspecified)	1×
Gram-pos. bacilli (unspecified)	1×
Gram-pos. cocci in pairs	1×
Normal urogenital flora (catheter)	1×
Yeast (unspecified, rare growth)	1×

S. aureus was the most frequently isolated organism — appearing in 6 of 25 cases across multiple growth levels and sensitivities.