Supporting all 3 phases of the transplant journey with end-to-end testing solutions

Transplant clinicians and recipients notice improved outcomes when they work with specialized transplant labs that offer comprehensive, quality testing.[1] Quest Advanced Specialized Transplant Services is here for you, with testing solutions that support all 3 phases of the complex transplant journey.

> Find out how

Pre-transplant evaluation and pre-operative testing*

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Blood type testing

Establishes ABO blood type, since recipients and donors must have either the same blood type or compatible ones.[2]

Human leukocyte antigen (HLA) testing

Matches organ and tissue recipients with compatible donors; also screens for the presence of antibodies that might target the donated tissue or organ as part of an immune response.[2]

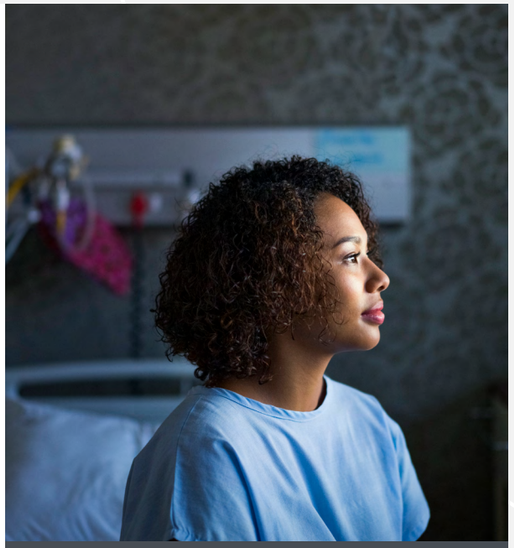
Crossmatch testing

Detects the presence of antibodies in the recipient against the red blood cells of the donor. Occurs several times during living-donor transplant preparation, particularly if donor-specific blood transfusions are employed; a final crossmatch also is performed within 48 hours before the transplant.[2]

Infectious disease and other testing

Tests for infectious diseases, such as HIV, sexually transmitted infections (STIs), hepatitis, cytomegalovirus (CMV), and West Nile virus; also checks the function of the heart, kidneys, liver, thyroid, and/or immune system; blood sugar control; and/or electrolyte balance.[2]

*Pre-transplant testing is conducted as applicable in a Quest Diagnostics FDA-registered transplant lab using FDA-cleared or -approved tests.
Disclaimer: The timeline of infectious disease testing following organ transplantation is not limited to this.



How Quest can help

- Protocol-based infectious disease testing per transplant type
- Low threshold for identifying when further tests or admission is necessary, to catch, evaluate, and treat issues early
- Genetic testing for the evaluation of living donor candidates and transplant recipients

Post-transplant monitoring

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Infectious disease testing <4 weeks post-transplant

Monitoring and testing for donor-derived viruses, *Candida* species, anastomotic leaks, *Clostridioides difficile (C diff)*, line and wound infection, nosocomial pneumonia, and urinary tract infections.[4] Drug toxicity and drug interactions with immunosuppressive agents used to maintain graft function should also be monitored.[3]

Infectious disease testing 1–12 months post-transplant

Monitoring and testing for adenovirus, BK polyomavirus, Epstein-Barr virus, hepatitis B and C, herpes simplex virus, human herpesvirus 6 and 7, *varicella zoster* virus (VZV), *Aspergillus*, endemic fungi, *Mucor*, *Scedosporium*, *Pneumocystis jirovecii*, *Listeria monocytogenes*, *Nocardia* species, *Leishmania* species, *Strongyloides stercoralis*, *Trypanosoma cruzi*, and *Toxoplasma gondii*.[3]

Infectious disease testing >12 months post-transplant

Monitoring and testing for community-acquired respiratory viruses, cytomegalovirus, human papillomavirus, JC polyomavirus and PML, PTLD, *Aspergillus*, *Cryptococcus neoformans*, *Mucor*, *Scedosporium*, and *Mycobacterium tuberculosis*, among others.[3]

> See post-transplant infection risk timeline

How Quest can help

- Protocol-based infectious disease testing per transplant type
- Clinical consultations, longitudinal data, and EMR integration to support decision-making across a patient's care team

Ongoing follow-up and care

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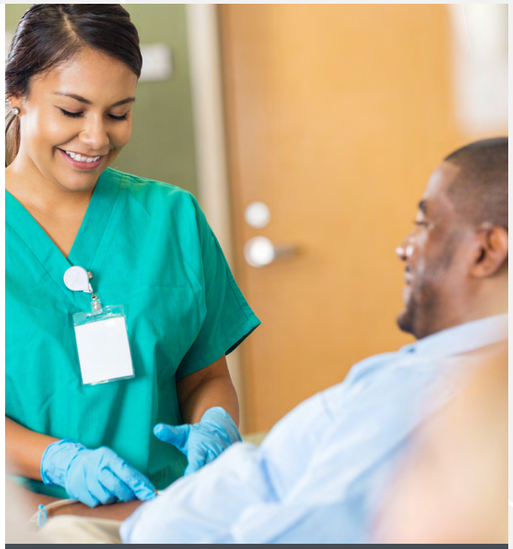
Regular/routine blood testing

Includes monitoring and testing for evidence of chronic rejection, organ/body function, and effectiveness of postoperative treatment. Also requires management of risk factors, led by the primary care physician and coordinated with the transplant center/team, since cardiovascular disease and renal failure are the leading causes of post-transplant morbidity and mortality independent of graft rejection.[4]

Molecular expression testing

Monitors the activity of specific genes in white blood cells to determine the risk of acute cellular rejection for heart transplant recipients.

> Learn more



How Quest can help

- National footprint with convenient lab draw locations
- Patient engagement and outreach programs, including home draws and diverse types of patient education materials, for improved testing adherence and better outcomes

A better transplant testing journey
for patients and providers

Find out how Quest Diagnostics is powering affordable care through improved experiences and better outcomes across the patient and hospital transplant journey.

Visit QuestAdvanced.com/transplant to learn more.

References:

1. The critical role of laboratory testing in transplantation. Future of Personal Health. Published January 2020. Accessed August 11, 2023. www.futureofpersonalhealth.com/transplants/the-critical-role-of-laboratory-testing-in-transplantation/
2. Transplant screening tests. UCSF Health. Accessed August 11, 2023. www.ucsfhealth.org/education/transplant-screening-tests
3. Fishman JA. Infection in organ transplantation. Am J Transplant. 2017;17:856-879. doi:10.1111/ajt.14208
4. Cimino FM, Snyder KAM. Primary care of the solid organ transplant recipient. Am Fam Physician. 2016;93(3):203-210. doi:10.1007/978-3-030-50629-2

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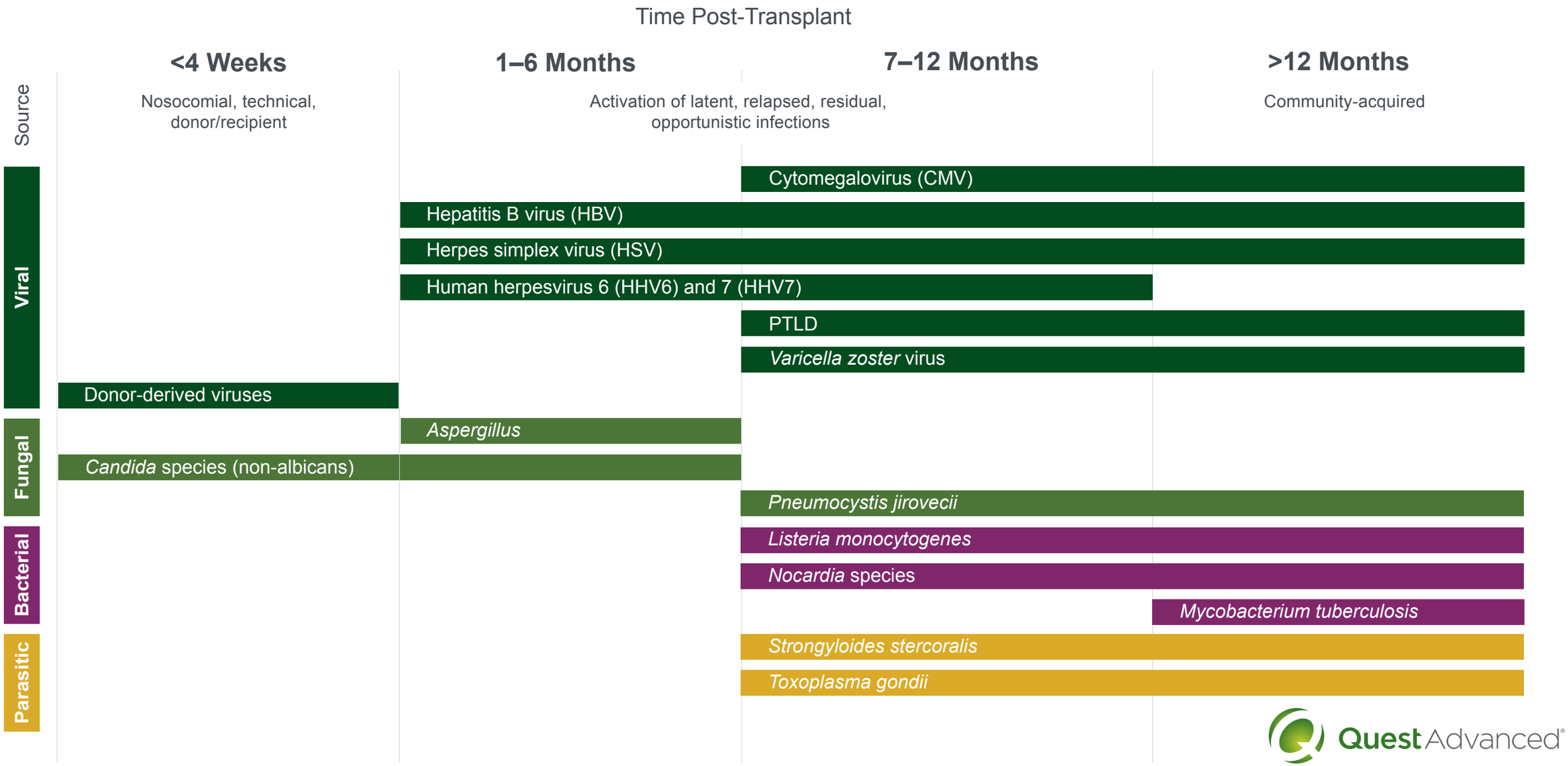
Post-transplant diseases and average times of onset[3]



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