# *QUESTIONS FOR CAC ON THE USE OF MOLECULAR DIAGNOSTIC TESTING TO IDENTIFY ACUTE REJECTION IN KIDNEY OR LIVER TRANSPLANT RECIPIENTS*

## Kidney Transplant Recipients

Test(s): AlloMap, AlloSure, Prospera, ViracorTRAC, QSant, kSORT, TruGraf, OmniGraf

1. Is there sufficient evidence to identify the patient population that the molecular diagnostic test could be used? (e.g., risk level, ethnic/cultural demographics, repeat transplant recipients, etc.)
2. Is there sufficient evidence on the clinical context (i.e., for-cause vs. surveillance) in which the molecular diagnostic test could be used?
3. In the existing evidence, what is the level of confidence (or certainty) regarding test performance data reported without any confidence intervals?
4. Is there sufficient evidence to support the utility of surveillance (i.e., not for cause) testing in kidney transplant recipients?
    4a. If "yes", what is the appropriate testing schedule based on the published evidence?
5. Is there sufficient evidence on the ability of the molecular diagnostic test (or combination of tests) to discriminate **acute T-cell-mediated rejection** from quiescence?
6. Is there sufficient evidence on the ability of the molecular diagnostic test (or combination of tests) to discriminate **antibody-mediated rejection** from quiescence?
7. Is there sufficient evidence to standardize thresholds/cutoffs in kidney transplant recipients?
    7a. Are currently published thresholds/cutoffs affected by the time post-transplant?
    7b. If "yes" for any of the tests (AlloMap, AlloSure, Prospera, Viracor TRAC, QSant, kSORT, TruGraf) please comment on how the thresholds/cutoffs are affected by the time post-transplant.
    7c. Based on the evidence, for kidney transplant recipients, what should the appropriate thresholds/cutoffs be for AlloMap, AlloSure, Prospera, Viracor TRAC, QSant, kSORT, and TruGraf?
8. Is there sufficient evidence to indicate that in patients **without signs and symptoms** of rejection, use of the molecular diagnostic test (or combination of tests) would preclude the need for kidney biopsy?
9. Is there sufficient evidence to indicate that in patients **with signs and symptoms** of rejection, use of the molecular diagnostic test (or combination of tests) would preclude the need for kidney biopsy?
10. Is there sufficient evidence on the ability of the molecular diagnostic test (or combination of tests) to guide clinical management without kidney biopsy?
    10a. If "yes" for any of the above, what aspect of your clinical management would be influenced by the test result?

11. Would you perform a kidney biopsy if the molecular diagnostic test indicates rejection, but the patient exhibits no signs and symptoms of rejection?
12. How confident are you in the evidence that, for AlloSure, Prospera, Viracor TRAC, and QSant, an elevation in donor-derived cell-free DNA indicates rejection?
13. How confident are you in the evidence that, for AlloMap, kSORT and TruGraf, the test results can accurately indicate rejection?

## Liver Transplant Recipients

### Test(s): Viracor TRAC

1. Is there sufficient evidence to identify the patient population that the molecular diagnostic test could be used? (e.g., risk level, ethnic/cultural demographics, repeat transplant recipients, etc.)
2. Is there sufficient evidence on the clinical context (i.e., for-cause vs. surveillance) in which the molecular diagnostic test could be used?
3. In the existing evidence, what is the level of confidence (or certainty) regarding test performance data reported without any confidence intervals?
4. Is there sufficient evidence to support the utility of surveillance (not for-cause) testing in liver transplant recipients?
   4a. If "yes", what is the appropriate testing schedule based on the published evidence?
5. Is there sufficient evidence on the ability of the molecular diagnostic test to discriminate rejection (T cell-mediated or antibody-mediated) from quiescence?
6. Is there sufficient evidence to standardize thresholds/cutoffs in liver transplant recipients?
   6a. Are currently published thresholds/cutoffs affected by the time post-transplant?
   6b. If "yes" for Viracor TRAC, please comment on how the thresholds/cutoffs are affected by the time post-transplant.
   6c. Based on the evidence, for liver transplant recipients, what should the appropriate thresholds/cutoffs be for Viracor TRAC?
7. Is there sufficient evidence to indicate that in patients **without signs and symptoms** of rejection, use of the molecular diagnostic test would preclude the need for liver biopsy?
8. Is there sufficient evidence to indicate that in patients **with signs and symptoms** of rejection, use of the molecular diagnostic test would preclude the need for liver biopsy?
9. Is there sufficient evidence on the ability of the molecular diagnostic test to guide clinical management without liver biopsy?
   9a. If "yes" for any of the above, what aspect of your clinical management would be influenced by the test result?
10. Would you perform a liver biopsy if the molecular diagnostic test indicates rejection, but the patient exhibits no signs and symptoms of rejection?
11. How confident are you in the evidence that, for Viracor TRAC, an elevation in donor-derived cell-free DNA indicates rejection?