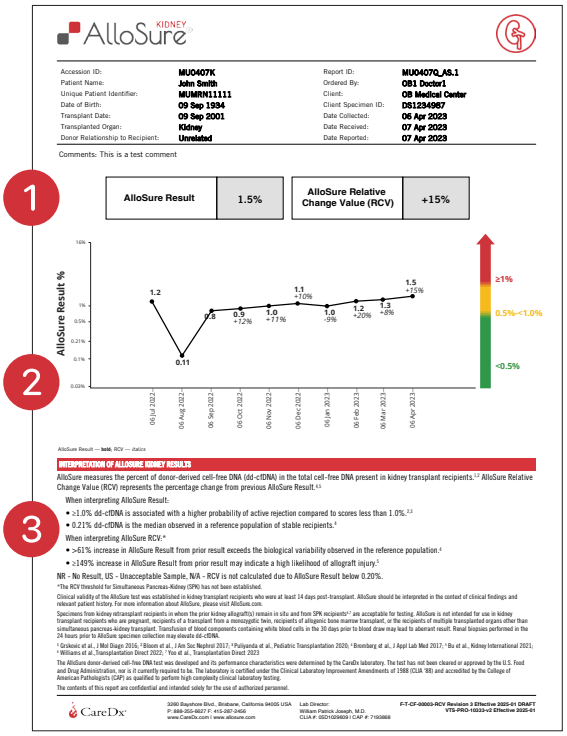
AlloSure KIDNEY

AlloSure Results Interpretation Guide



This guide is designed for clinicians and should be used as a supplement to the AlloSure Kidney results report. AlloSure results and allograft rejection status should always be considered in the context of other clinical factors and a clinician's judgement.

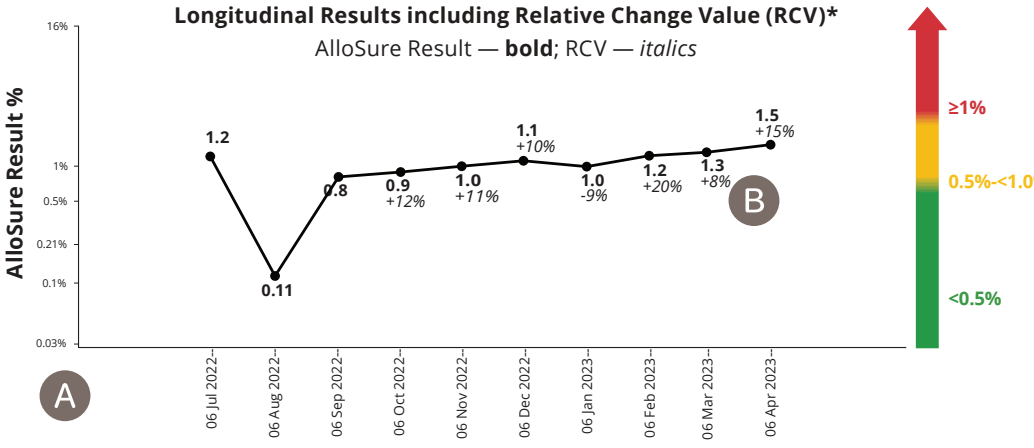
1 Current Test Result and Relative Change Value

The Results Section reports the dd-cfDNA level obtained from the most recent AlloSure draw and the relative change value between results. Patients with dd-cfDNA levels ≥1.0% have a higher risk of active rejection (AR) than patients with dd-cfDNA levels under 0.5%.[1] Increases between results, also known as Relative Change Value (RCV), of greater than 61% exceed normal biological variation and increases of 149% or more may indicate allograft injury.[1,5]

AlloSure Result	1.5%	AlloSure Relative Change Value (RCV)	+15%

2 Patient Test Summary

The Patient Test Summary depicts a patient's AlloSure results over time. For optimized clinical care, establishing a patient's baseline AlloSure level may be beneficial.



A The X-axis highlights the date of blood draw; the Y-axis represents the % dd-cfDNA level at the date of the blood draw.

B A solid line connects dd-cfDNA levels over time, and reflects the relative change value between results.*

* An increase of greater than **61%** in consecutive AlloSure results is greater than the change that can be attributed to normal biological variation; additional clinical workup may be warranted. A median increase of **149%** between results is indicative of graft injury; additional clinical workup is likely warranted. Please note that Relative Change Values will not be calculated anytime AlloSure results are under **0.20%**.

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3 Interpretation of AlloSure Test Results

>2.9% AlloSure dd-cfDNA is associated with a higher risk of active rejection

AlloSure results over 2.9% with the presence of DSAs is highly predictive of antibody-mediated rejection with a PPV of 89%.[4]

≥1.0% AlloSure dd-cfDNA is associated with a higher risk of active rejection

AlloSure dd-cfDNA levels greater than or equal to 1% may indicate a probability of active rejection (antibody-mediated rejection or T cell-mediated rejection). For dd-cfDNA ≥1.0%, there is a positive predictive value (PPV) of 54% and a negative predictive value (NPV) of 84% for active rejection. The positive and negative predictive values for antibody-mediated rejection at an AlloSure result of 1.0% are 49% and 85%, respectively.[1-4]

>0.5% AlloSure dd-cfDNA is an early signal of graft injury and dysfunction

AlloSure dd-cfDNA levels greater than 0.5% may indicate a high risk for recurrent rejection, detection of DSAs, and loss of eGFR, with a PPV for all rejection of 50% and an NPV of 90%.[1-3]

0.21-0.23% AlloSure dd-cfDNA is the median observed in a reference population of stable recipients

Patients with AlloSure dd-cfDNA levels of 0.21% have an NPV of 95% for active rejection.[2]

>61% increase in AlloSure dd-cfDNA from a prior sample exceeds normal biological variability and ≥149% is indicative of allograft injury

An increase of greater than 61% between results is larger than the change that may be attributable to normal biological variation.[5] An increase of greater than or equal to 149% between results is indicative of allograft injury.[1] Additional clinical workup is warranted. Please note that Relative Change Values will not be calculated anytime AlloSure results are under 0.20%.

Considerations for Simultaneous Pancreas-Kidney (SPK) Patients

- AlloSure levels in stable patients were between 0.18% to 0.29%[6,7]
- 97% of patients without rejection had a AlloSure levels < 0.5%[6]
- Patients with rejection had AlloSure levels elevated from their baseline[6,7]
- The RCV in Section 1 and thresholds in Section 3 have not been validated in SPK

Contraindications and Limitations

DO NOT USE AlloSure testing for

- Recipients of transplanted organs other than kidney transplant(s) (SPK transplants are acceptable)
- Recipients of a transplant from a monozygotic (identical) twin
- Recipients of a bone marrow transplant
- Recipients who are pregnant
- Recipients who are less than 14 days post-transplant

Limitations

AlloSure should not be used within:

- 30 days after a blood transfusion that contains white blood cells (washed or leukocyte-depleted RBCs are acceptable)
- 24 hours following a biopsy

References:

1. Bu, L et al. *Kidney International* 2021
2. Bloom RD et al. *J Am Soc Nephrol.* 2017; 28:2221–2232
3. Stites E, et al. *Am J Transplant.* 2020; 00:1–8
4. Jordan SC et al. *Transplantation Direct* 2018; 4:e379
5. Bromberg JS et al. *J Appl Lab Med.* 2017; 2:309–321
6. Williams MD, Fei M, Schadde E, et al. *Transplantation Direct* 2022; 8:e1321. doi: 10.1097/TXD.0000000000001321.
7. Yoo A, Riedel A, Qian I, et al. *Transplantation Direct* 2023; 9:e1459. doi: 10.1097/TXD.0000000000001459

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