

For prediabetes, prevalence was 37.1% in Asians, 36.7% in Hawaiian/Pacific Islanders, 35.3% in Hispanics, 32.0% in blacks, 31.1% in American Indians/Alaska Natives, and 31.0% in whites.

Compared to whites, all racial/ethnic minority groups had a higher diabetes prevalence at a given BMI, with the differences being most marked at lower BMI levels. In the normal weight range, 5% of whites had diabetes, compared to about 10% of Asians and American Indians/Alaska Natives and 13% to 14% of Hispanics, blacks, and Hawaiian/

Pacific Islanders. On adjusted analysis, the association between BMI and diabetes was strongest in whites and lowest in blacks.

Obesity and race/ethnicity are major risk factors for diabetes, but racial/ethnic disparities in diabetes do not correspond to differences in obesity. This study in a very large insured population finds that Americans of racial/ethnic minority groups have a higher prevalence of diabetes and prediabetes at lower BMI levels.

The findings suggest that factors other than obesity contribute to the disproportio-

nately high burden of diabetes/prediabetes in racial/ethnic minorities, who are at increased risk even at relatively low BMI levels. The findings “highlight the importance of tailored screening, prevention, and intervention strategies to mitigate the risk of diabetes and prediabetes,” the researchers write [Zhu Y, et al. Racial/ethnic disparities in the prevalence of diabetes and prediabetes by BMI: Patient Outcomes Research To Advance Learning (PORTAL) multisite cohort of adults in the U.S. *Diabetes Care* 2019; DOI: 10.2337/dc19-0532]. ■

## iBox Score Predicts Allograft Loss After Kidney Transplantation



A new integrative box risk prediction (iBox) score performs well in predicting long-term kidney allograft failure across countries and clinical settings, reports a study in the *British Medical Journal*.

The score was developed using data from a prospectively enrolled derivation cohort of 4000 consecutive adult kidney transplant recipients (from living or deceased donors) at three French hospitals between 2005 and 2014. Allograft loss, defined as definitive return to dialysis or preemptive transplantation, was assessed using follow-up data to 2018. Independent predictors on multivariable analysis—including demographic factors, measures of allograft function and histology, and the recipient’s immunologic profile—were incorporated into the iBox score. The score was validated in cohorts of 2129 recipients from European centers and 1428 from North American centers, with additional validation using data from three randomized trials.

The combined cohorts comprised 1775 transplant recipients; at a median follow-up of 7.12 years, the allograft failure rate was 14.1%. The iBox score had accurate calibration and discrimination, with a C index of 0.81 in both the derivation and validation cohorts. Its discriminative capability was confirmed using 3-, 5-, and 7-year follow-up data. The iBox score also performed well in data from randomized trials evaluating therapeutic interventions.

The new risk prediction score was validated in clinical scenarios involving immunosuppressive regimens and response to rejection therapy. In a systematic review, the iBox score provided additional value over previously reported risk scores, as well as scores based on measures of allograft function.

The iBox score meets the need for an integrated tool for predicting the long-term risk of allograft failure after kidney transplantation. Combining demographic, functional, histologic, and immunologic variables, it can be readily implemented for risk prediction in clinical practice. An online interface for calculating allograft survival estimates for individual patients is available at [www.paristransplantgroup.org](http://www.paristransplantgroup.org) [Loupy A, et al. Prediction system for risk of allograft loss in patients receiving kidney transplants: international derivation and validation study. *BMJ* 2019; 366:l4923]. ■

## It's time for kidney talk

When you see unexplained signs of kidney disease, think **Alport syndrome**. It can filter through a family.

### Incurable disease

- Alport syndrome (AS) is a **permanent, hereditary condition** responsible for a genetically defective glomerular basement membrane, causing chronic kidney inflammation, tissue fibrosis, and kidney failure<sup>1-6</sup>
- Across the entire range of AS genotypes, **patients are at risk of progressing towards end-stage kidney disease (ESKD)**<sup>3,7,8</sup>

### Hidden signs

- **Patients often go undiagnosed**, as the clinical presentation of AS is highly variable and family history may be unavailable<sup>3,9-11</sup>
- **Persistent, microscopic hematuria is the cardinal sign of AS** and should prompt immediate diagnostic investigation—particularly when combined with any family history of chronic kidney disease<sup>8,11,12</sup>

### Early action

- Expert guidelines published in the *Journal of the American Society of Nephrology* now **recommend genetic testing as the gold standard for diagnosing Alport syndrome**<sup>8</sup>
- Early AS detection via genetic diagnosis, and its ability to guide a patient’s treatment decisions, demonstrates the **powerful impact of precision medicine in nephrology**<sup>12-14</sup>

Reata and Invitae have collaborated to offer no-charge genetic testing for rare chronic kidney disease diagnosis and greater clinical insights. For more information regarding the KIDNEYCODE program or to order a test, please visit [www.invitae.com/chronic-kidney-disease](http://www.invitae.com/chronic-kidney-disease) or contact Invitae client services at [clientservices@invitae.com](mailto:clientservices@invitae.com) or 800-436-3037.

**Abnormal kidney function can have a strong family connection—  
Alport syndrome**

Learn more about Alport syndrome at  
[ReataPharma.com](http://ReataPharma.com).



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