**Sample Choosing Wisely-Ish Statements:**

**GFR**

**Draft of Statement**: Andrea Westby, MD

eGFR is higher if you note your patient as African American because the MDRD and CKD-Epi equations use “race”, which is socially defined, as a proxy for a biological difference, and it is not.

Best evidence says we should not use the MDRD equation with the race-correction factor to determine eGFR. If your lab does still use the MDRD or CKD-Epi, you should consider using the “non-African American” GFR category for all your patients, because the coefficient used may underestimate CKD in Black patients, especially young patients, which in turn may systematically cause high-risk Black patients to miss time-sensitive interventions. An alternative approach might be to use the two calculations as a range of possibilities, and then use a more precise calculation such as Cystatin-C if it changes clinical management. Studies outside of the United States have shown that the MDRD equation’s race-correction is not valid for their Black patients, which argues that race is not the factor that determines higher levels of creatinine measured in healthy African American patients in the first MDRD study. As a result, the Kidney Disease Improving Global Outcomes 2012 practice guideline for evaluation and management of CKD has recommended discontinuing use of the MDRD study equation in favor of a more accurate serum marker-based equation that does not rely on race as a surrogate.

Evidence:

* Peralta, C. A., Lin, F., Shlipak, M. G., Siscovick, D., Lewis, C., Jacobs, D. R., & Bibbins-Domingo, K. (2010). Race differences in prevalence of chronic kidney disease among young adults using creatinine-based glomerular filtration rate-estimating equations. *Nephrology Dialysis Transplantation*, 25(12), 3934-3939. doi:10.1093/ndt/gfq299
* Roberts, Anna L.Green, Amanda, Loughna, Pam et al. (2014) Adjustment for race in the estimation of glomerular filtration rate (GFR) is inappropriate in the British postnatal population. European Journal of Obstetrics and Gynecology and Reproductive Biology, Volume 176, 200 - 201
* Levey, Andrew S., Stevens, Lesley A. (2010). Estimating GFR Using the CKD Epidemiology Collaboration (CKD-EPI) Creatinine Equation: More Accurate GFR Estimates, Lower CKD Prevalence Estimates, and Better Risk Predictions. Am J Kidney Dis. April ; 55(4): 622–627. doi:10.1053/j.ajkd.2010.02.337.
* Zanocco, J. A., Nishida, S. K., Passos, M. T., Pereira, A. R., Silva, M. S., Pereira, A. B., & Kirsztajn, G. M. (). Race adjustment for estimating glomerular filtration rate is not always necessary. *Nephron extra*, *2*(1), 293–302. doi:10.1159/000343899

**PPH Risk Calculator**

**Draft of Statement**: Lee Haggenjos, MD, Michaela McCuddy, MD, and Andrea Westby, MD.

Postpartum hemorrhage risk based on the CMQCC guidelines is increased if you note your patient as Hispanic or Asian because of noted associations from prior studies derived from administrative databases.

Best evidence says we should acknowledge that multiple prior studies have found increased frequency of significant maternal morbidities among racial and ethnic groups, including PPH, and so we should use this increased rate to guide our caution in caring for patients from Asian or Hispanic backgrounds in order to not under-treat them. However, the presumption that this finding (if not falsely due to unmeasured social difference or practice patterns) is due to biologic difference is not anywhere supported by data, nor would it be as defined by social terms. These findings are less robust in newer studies and were not previously controlled for patient risk adjustment or adjustment for admitting hospital. Moreover, unexplained variations in healthcare processes (frequency/timing of admission or pushing) have been noted but not well studied and may likely contribute to these differences. Finally, in many known studies, the determination of racial or ethnic group was unclear (patient determined vs intake, etc) further complicating the definitions of these presumed distinct patient groups.

Evidence:

* Bryant, A., Mhyre, J. M., Leffert, L. R., Hoban, R. A., Yakoob, M. Y., & Bateman, B. T. (2012). The association of maternal race and ethnicity and the risk of postpartum hemorrhage. *Anesthesia and Analgesia*, *115*(5), 1127–1136. <https://doi.org/10.1213/ANE.0b013e3182691e62>
* Gyamfi-Bannerman, C., Srinivas, S. K., Wright, J. D., Goffman, D., Siddiq, Z., D’Alton, M. E., & Friedman, A. M. (2018). Postpartum hemorrhage outcomes and race. *American Journal of Obstetrics and Gynecology*, *219*(2), 185.e1-185.e10. https://doi.org/10.1016/j.ajog.2018.04.052
* Wetta, L. A., Szychowski, J. M., Seals, S., Mancuso, M. S., Biggio, J. R., & Tita, A. T. N. (2013). Risk factors for uterine atony/postpartum hemorrhage requiring treatment after vaginal delivery. *American Journal of Obstetrics and Gynecology*, *209*(1), 51.e1-51.e6. <https://doi.org/10.1016/j.ajog.2013.03.011>

**VBAC/Vaginal Birth After Cesarean Success Calculator**

**Draft of Statement**: Katie Swanson, DO and Anne Doering, MD

Best evidence says we should talk with patients about the limits of the TOLAC nomogram, consider patients' goals and situations, and use shared decision making. "Race," which is socially defined, was included as a predictive factor based on observational data. Rather than representing a biologic difference, these data reflect systemic and institutional racism. The nomogram has been validated in Canada and Sweden without race as a factor. Including race in the calculator perpetuates racial disparities in rates of cesarean section and maternal morbidity and mortality. Additionally, the calculator predicts success more accurately than failure, making lower predicted success rates less useful. We should talk with patients about the limitations of the calculator, consider their goals, and offer support for any social needs.

When using the VBAC calculator with patients who self-identify as African American or Hispanic, best evidence demonstrates a patient's score should be calculated with the questions regarding race marked as 'no', thereby eliminating race as a factor. This should be compared with the conventional calculation. If the result would change management, the non race-based calculation should be favored.

Evidence:

Cahill, A. G., Stamilio, D. M., Odibo, A. O., Peipert, J., Stevens, E., & Macones, G. A. (2008). Racial Disparity in the Success and Complications of Vaginal Birth After Cesarean Delivery, *111*(3), 5.

Cheng, E. R., Declercq, E. R., Belanoff, C., Iverson, R. E., & McCloskey, L. (2015). Racial and ethnic differences in the likelihood of vaginal birth after cesarean delivery. *Birth (Berkeley, Calif.)*, *42*(3), 249–253.<https://doi.org/10.1111/birt.12174>

Edmonds, J. K., Hawkins, S. S., & Cohen, B. B. (2016). Variation in Vaginal Birth After Cesarean by Maternal Race and Detailed Ethnicity. *Maternal and Child Health Journal*, *20*(6), 1114–1123.<https://doi.org/10.1007/s10995-015-1897-5>

Grobman, W. A., Lai, Y., Landon, M. B., Spong, C. Y., Leveno, K. J., Rouse, D. J., … Mercer, B. M. (2007). Development of a Nomogram for Prediction of Vaginal Birth After Cesarean Delivery: *Obstetrics & Gynecology*, *109*(4), 806–812.<https://doi.org/10.1097/01.AOG.0000259312.36053.02>

Hollard, A. L., Wing, D. A., Hollard, A. L., Wing, D. A., Chung, J. H., Rumney, P. J., … Lagrew, D. (2006). Ethnic disparity in the success of vaginal birth after cesarean delivery. *The Journal of Maternal-Fetal & Neonatal Medicine*, *19*(8), 483–487.<https://doi.org/10.1080/14767050600847809>

Maykin, M. M., Mularz, A. J., Lee, L. K., & Valderramos, S. G. (2017). Validation of a Prediction Model for Vaginal Birth after Cesarean Delivery Reveals Unexpected Success in a Diverse American Population. *AJP Reports*, *7*(1), e31–e38.<https://doi.org/10.1055/s-0037-1599129>

Regan, J., Keup, C., Wolfe, K., Snyder, C., & DeFranco, E. (2015). Vaginal birth after cesarean success in high-risk women: a population-based study. *Journal of Perinatology*, *35*(4), 252–257.<https://doi.org/10.1038/jp.2014.196>

Thornton, P. (2018). Limitations of Vaginal Birth After Cesarean Success Prediction. *Journal of Midwifery & Women’s Health*, *63*(1), 115–120.<https://doi.org/10.1111/jmwh.12724>

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