ASCEND

Ascend Clinical offers a variety of adequacy panels in LabCheck.

HEMODIALYSIS	
Kt/V Jindal (Not K/DOQI Recommended)	• Jindal calculation • Does not require draw information • Includes Pre BUN, Post BUN, URR and Kt/V Jindal
Kt/V Natural Log, URR	• Daugirdas II calculation • Requires draw information: pre-weight, post-weight, treatment time • Includes Pre BUN, Post BUN, URR, UFR and Kt/V Natural Log • CMS requirement for patients dialyzing 3 times per week
Kt/V Natural Log, URR, nPNA (3x/wk)	• Daugirdas II and Depner calculations • Requires draw information: pre-weight, post-weight, treatment time, treatment number for nPNA calculation • Includes Pre BUN, Post BUN, URR, UFR, Kt/V Natural Log and nPNA • nPNA calculated from Kt/V without formal kinetic modeling by Depner and Daugirdas using thrice weekly dialysis
Kt/V Standard, URR (<>3x/wk)	• Leypoldt calculation • Requires draw information: pre-weight, post-weight, treatment time, number of treatments per week • Includes Pre BUN, Post BUN, URR, UFR and Kt/V Standard • CMS requirement for patients dialyzing 2 or 4-6 times per week
Kt/V Residual	• Kt/V Residual calculated when Residual Urea Clearance ordered together with Kt/V Natural Log or Kt/V Standard; assesses total adequacy and is included on a patient report up to 90 days. • Requires draw information: 24-hr urine collection time, urine volume, dry weight, height • Includes Pre BUN, KrU, Urine Urea Nitrogen, Kt/V Residual

PERITONEAL DIALYSIS	
PD Adequacy No Urine	• Volume of Distribution (V): Hume and Weyers for Adult; Friis-Hansen for Peds <16 years • Body Surface Area (BSA): Dubois and Dubois for Adult; Haycock for Peds <16 years • Protein Nitrogen Appearance (PNA): Bergstrom • Requires draw information: dry weight, height, 24-hr total drain volume • Includes Blood BUN, Blood Creatinine, Fluid Glucose, Fluid Urea Nitrogen, Fluid Creatinine, Weekly Dialysate Kt/V, Weekly Dialysate CrCl, nPNA
PD Adequacy With Urine	• Volume of Distribution (V): Hume and Weyers for Adult; Friis-Hansen for Peds <16 years • Body Surface Area (BSA): Dubois and Dubois for Adult; Haycock for Peds <16 years • Protein Nitrogen Appearance (PNA): Bergstrom • Requires draw information: dry weight, height, total urine collection time, urine volume, 24-hr total drain volume • Includes Blood BUN, Blood Creatinine, Fluid Glucose, Fluid Urea Nitrogen, Fluid Creatinine, Urine Urea Nitrogen, Urine Creatinine, Weekly Dialysate Kt/V, Weekly Residual Kt/V, Weekly Total Kt/V, Weekly Dialysate CrCl, Weekly Residual GFR, Weekly Total CrCl, Weekly Residual CrCl, and nPNA

FORMAL UREA KINETIC MODELING (UKM)

Formal Kinetic Modeling is also available in LabCheck for hemodialysis patients dialyzing 2-3 times per week. Per KDOQI, formal kinetic modeling provides a quantitative method for developing a treatment prescription for a specific patient. Formal UKM can be used to calculate the exact treatment time required to deliver a particular hemodialysis dose at specified blood and dialysate flows with a particular dialyzer.

RESOURCES

AJKD: https://www.ajkd.org/article/S0272-6386(15)01019-7/fulltext
CMS: https://www.cms.gov/Medicare/Provider-Enrollment-and-Certification/GuidanceforLawsAndRegulations/Dialysis.html
KDOQI: https://www.kidney.org/sites/default/files/docs/12-50-0210_jag_dcp_guidelines-hd_oct06_sectiona_ofc.pdf