

Maintaining lifelines for ESKD patients - ASDIN and VASA joint statement

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The Covid19 pandemic is presenting the world with an uncertain future. In the US we do not know if epidemiological disease trajectories will follow the course of many European countries, if there will be a 40-50 days sharp peak in new infection, a many months long flattened curve, or two peaks, one now followed by one in the fall.

Infection rates and patterns of disease severity manifestations indicate that in-patient care will face extreme challenges, including possible lack of ICU beds, ventilators, PPE (personal protective equipment), nursing and physician staff, to name a few. In light of the need to conserve critical resources CMS published recommendations for adult elective surgeries on March 18, 2020 (<https://www.cms.gov/files/document/31820-cms-adult-elective-surgery-and-procedures-recommendations.pdf>).

Dialysis accesses, including fistulas, grafts, PD and hemodialysis catheters are the lifeline for patients with end-stage kidney disease. While access dysfunction does not result in immediate death, lack of dialysis access will lead to major complications and eventual demise, usually over the course of days to weeks.

Procedures performed to maintain functional dialysis access patency or to transition a tunneled dialysis catheter dependent patient to a different long-term access options reduce overall morbidity and mortality. As the functional deterioration of dialysis access is usually rapid over days to weeks, a timely intervention would avoid replacing short duration, low intensity, high success procedures (e.g. angioplasty or stent placement) early with longer duration, higher intensity, higher failure procedures (e.g. thrombectomy or surgical revision) later.

Dialysis access procedures are performed in ambulatory settings (HOPD, ASC or OBS), or in the hospital. Procedural success and rate of complications for procedures in ambulatory versus in-hospital setting are at least equivalent. Ambulatory status for patients with end-stage kidney disease requiring dialysis access procedures protects this vulnerable population from increased Covid19 exposure in the hospital, and at the same time preserves limited hospital resources such as hospital workforce and dialysis machines for inpatients.

We urge local and state governments, as well as hospital administrations to categorize *dialysis access procedures as Tier 3a and 3b, with location HOPD, ASC, OBS in addition to hospital*. This step will be instrumental in maintaining health and survival for ESKD patients as well as protecting hospitals from an eventual wave of high urgency/emergency procedures to deal with lost dialysis accesses.

One example for triage criteria to identify these access procedures is attached below, Appendix 1 (endo-vascular approach) and Appendix 2 (open approach). Typical procedure names and CPT codes are listed in Appendix 3 for reference. The current health care crisis is still evolving and further rationing of resources may be needed along the way.

Appendix 1 - Triage Process for Endovascular Procedures

access = fistula / graft / PD catheter / tunneled hemodialysis catheter actively used for dialysis

To be reviewed in real time for iterative as needed modifications

High Priority:

1. Outpatient thrombectomies without other access
2. Outpatient bleeding access or infection without sepsis (some may go straight to Surgery)
3. Outpatient access with clinical/laboratory signs of extreme dysfunction or inability to use
4. Outpatient access with signs and symptoms of cardiac strain, limb ischemia and impending tissue loss (high flow)
5. New dialysis initiations with volume or electrolyte emergencies/urgencies (PD or HD catheter placement; early cannulation graft)
6. Acute kidney injury in ICU
7. Inpatient thrombectomies
8. Outpatient access with inability to use and tunneled catheter in place
9. Outpatient access with new onset arm edema jeopardizing use of access or incapacitating limb use/movement
10. New access creation with endoAVF when referring nephrologist requests expedited care
11. Inpatient access dysfunction (may not be as extreme as above) if not preventing discharge
12. Outpatient access, not yet in use, with impending signs of occlusion
13. Catheter removals (as long as staff and resources available, to prevent infections during time when staff and resources are overwhelmed)
14. Vessel Mapping for access creation on specific urging of nephrologist when surgery is also pressing ahead (see Open HD access Cases Performance Plan)

Low Priority:

1. Vessel mappings for access placement (occasionally they may be necessary to guide urgent/emergent revision of a dysfunction/non-functional access)
2. Scheduled follow-up visits– instead institute enhanced triage by phone asking specific data on access function: trend of access flow past 4-6 months, trend of clearance 4-6 months, change in bleeding after needle removal, obtain photo of access, use telehealth tools where available

Appendix 2 - Open HD Access Cases Performance Plan

To be reviewed in real time for iterative as needed modifications

Continue with example cases below:

- Thrombosed/failing access unable to be managed by Interventional Approach
- Steal syndrome
- High flow access with complications such as Bleeding, CHF, Steal
- Infection
- Difficult augmentation/cannulation in patient with catheter in place
- Failure to mature
- Procedures requested for expedited care by referring nephrologist including creation of new access
- Inpatients in which access procedure will expedite patient progression
- Tunneled hemodialysis catheter placement or exchange that otherwise cannot be accommodated

Delay these types of cases:

- New HD access placement in stable, minimally to asymptomatic patients with eGFR of >15
- Patient with functioning catheters and only marginal or high-risk options for permanent HD access placement
- Asymptomatic non-used fistula ligation
- Asymptomatic AV access aneurysms without threatening signs (large thrombus, thin skin, etc.)
- Difficult augmentation/cannulation in CKD patients greater 3-6 months away from ESRD

Outpatient access clinics will continue with individual visit review the week prior for appropriateness and opportunity for delay/virtual or phone visit

Appendix 3 – Procedure names and usual CPT codes

The procedures we are referring to are listed below with most commonly used CPT codes:

1. Thrombectomy/declotting of AV Fistula or Graft
 - a. CPTs 36904, 36905, 36906
2. Hemodialysis or PD Catheter placement, exchange or Removal
 - a. CPTs 36558, 36581, 36589, 36575
 - b. CPTs 49418, 49422, 49400, 49325
3. Dialysis Access Angioplasty and Stent Placement (see indications list for guidance)
 - a. CPTs 36902, 36903, 36907, 36908
4. Dialysis Access Vessel Mapping
 - a. CPTs 36005, 75820, 75822, G0365
5. AV Fistula or Graft Creation-surgical or endovascular
 - a. CPTs C9754, C9755
 - b. CPTs 36818, 36819, 36820, 36821, 36825
 - c. CPTs 36830
6. AV Fistula or Graft revision
 - a. CPTs 36831, 36832, 36833
 - b. CPTs 37607