End-Stage Renal Disease
Network Program

Reduce Weight-Related Medical Ineligibility for Transplant: A Change Packet Approach

The IPRO ESRD Network Program, working with registered dietitians, has created this change packet to identify and prioritize mitigation strategies to address the barrier to transplant related to patient weight. Recognizing that the pursuit of and success in weight reduction is incumbent on the patient's investment and motivation in making the change, your facility's workflows can go a long way in supporting a motivated patient to achieve success in eliminating this barrier to transplant.

How to get started

A decision to adopt and maintain a weight loss program requires a willingness to make a lifestyle change, a process that takes time and requires support. As the interdisciplinary team works with each patient on their care plan, important elements to discuss are body image, weight, and interest in pursuing transplant. If excess weight is contributing to a patient's health issues or preventing them from considering transplantation, then working with the patient to create a weight loss plan is a valuable part of their plan of care. Following a change process at the facility level can help those patients continue their commitment and systematically address issues that they need to change.

It's important to have social worker involvement prior to developing a weight loss plan. This ensures that the patient is screened for mental health issues and food insecurity. Tools for screening can be found under Table 1. Secondary Driver 1d: Increasing Access to Healthy Food Choices.

While screening for food insecurity, it's important to note:

1. Whether the patient is receiving assistance from a program such as the Supplemental Nutrition Assistance Program (SNAP) or the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC).
2. Whether the patient can prepare food. Does the patient have a microwave, an oven, or a fridge?

Understanding these aspects of the patient's current situation will help the care team better tailor a weight loss plan of care to meet the specific needs of the patient.

If the patient has begun the process for referral to waitlist or is interested in being referred, the transplant center should be a primary point of contact when developing a weight loss plan. It's important for you, as the care team, to know the BMI requirements of the transplant center and what goals the patient should be striving to attain.

How to use this guide

There are practices that the facility must have in place to support a patient's weight loss journey and optimize their outcomes. To change your facility's practices and approaches to weight loss, you must identify your aim, primary driver, and secondary drivers.

Aim: What you want to accomplish. As an example, your aim might be to implement a new process or practice to help patients succeed in reducing body weight.

Primary Driver: The approach that you will take to influence change and reach your aim.

For example, implement a new process or practice related to diet to help patients succeed in reducing their weight.

Secondary Driver: The action or intervention needed to impact your primary driver.

For example, you might implement a new process or practice using visuals as part of your facility's diet education program.

Throughout this change packet you will notice that the secondary drivers are better led by an individual in a specific job role (dietitian, social worker, or nephrologist). The involvement of the entire care team and designation of an appropriate team lead in these initiatives will foster greater success in achieving your facility aims.

Examples of primary and secondary drivers related to reducing weight-related medical ineligibility are included in Table 1.

Table 1

Drivers to Reduce Weight-Related Medical Ineligibility in Transplant	
Primary Drivers	**Secondary Drivers**
1. Diet	1a: Dietary education 1b: Addressing mental health concerns 1c: Implementing visuals in your education 1d: Increasing access to healthy food choices 1e: Offering patient support through food diaries and trackers
2. Exercise	2a: Education 2b: Facility and home activities
3. Alternative Approaches	3a: Medication 3b: Considering bariatric surgery

The following tables expand on the primary drivers and provide specific change ideas and supporting literature.

Table 2

Primary Driver 1: Diet

Secondary Driver 1a: Dietary Education

For some patients, you may have to start with very basic information. Often, a patient may be able to attain wellness and weight loss goals simply by following normal nutrition guidelines, making healthy food choices, and eating proper portion sizes. While dietary education for patients on dialysis focuses on protein, phosphorus, and sodium levels, adjusting to a focus of general wellness is where you might want to start.

Change Ideas

1. Evaluate how you educate new and existing patients about diet; do current educational protocols highlight general dietary principles?
2. Discuss portion sizes with patients.
   - Educate on portion sizes using portion guidelines such as “palm, fist, or thumb-sized” servings.
   - Consider using a nutrition education plate to help patients understand proper portioning; suggest use of smaller serve ware.
   - Discuss how to eat at restaurants and be mindful of staying within portion guidelines.
     - Restaurant serving sizes are about 2.5 to 8 times larger than the standard serving size.
     - Patients can ask for a half portion or a children’s dish, or they can share with another person.
3. Provide information on simple food swaps that are lower in calories and kidney-diet friendly.

Secondary Driver 1b: Addressing Mental Health

Dialysis facility staff members are experienced in providing diet recommendations and guidelines to their patients; however, in some cases the patient needs additional support services.

Depression, anxiety, and many other mental health disorders are highly prevalent in the ESRD patient population and are often associated with poor quality of life and increased risk of mortality. There is also a link between poor mental health and behavioral consequences such as dietary indiscretion and interdialytic weight gain. In addition, patients with chronic illness and financial insecurity are at a higher risk of both obesity and depression.

Secondary Driver 1b: Addressing Mental Health (continued)

Change Ideas

1. Screen all patients to gauge their mental health status.
2. Provide education on the correlation between weight and mental health.
   - Distribute handouts, discuss during care planning, make a huddle board to highlight patient-facing resources.
3. Refer patients who screen positive to mental health services.
   - Ensure compliance with treatment, and support patients through the journey.
   - Mental health service locators:
     - https://www.psychologytoday.com/us/therapists
     - https://findtreatment.gov
     - https://locator.apa.org
   - If your patients are seeking treatment with a provider who understands their specific background, culture, or identity, the following are specialized provider search engines that help identified populations seek appropriate mental health support.
     - https://www.blackfemaletherapists.com/directory
     - https://blackmentalhealth.com/connect-with-a-therapist
     - https://www.therapyforqpoc.com/find-a-therapist#!directory
     - https://muslimmentalhealth.com/directory
     - https://latinxtherapy.com/find-a-therapist

Secondary Driver 1c: Implementing Visuals in your Education

Individuals have different learning styles. Some people are visual learners, others learn by listening, some learn by reading, and others are hands-on, or need demonstration. Consider incorporating visuals in your education about diet. Keep your patient population in mind and consider visuals that display culturally appropriate foods or address specific patient barriers.

Change Ideas

1. Have a cart or a display of what a plated meal would look like so patients can visualize portion and serving sizes. A display of food made from craft material or plastic model food can be useful, not only for the visual learner, but also for the hands-on and demonstration learners.
   - Use the display for lobby days and chairside diet education.
2. To maximize infection control, develop a huddle board that allows patients to visualize a proper-portioned plated meal. You can use paper plates and model food or clippings of food from magazines or grocery store newspapers to help patients visualize portion and serving sizes.
   - Switch it up with education on food labels, pinpointing areas of interest such as calories, serving sizes, and sodium content.
3. Consider developing or obtaining "MyPlate" handouts like these from the National Kidney Foundation.
   - MyPlate English
   - MyPlate Spanish

   Handouts are great for the patient to visualize portions, and they provide an opportunity for family members to be involved in the process, especially if the patient is not the primary cook in the household.

Secondary Driver 1d: Increasing Access to Healthy Food

Food insecurity is the limited or uncertain availability of nutritionally adequate and safe foods. Food insecurity is associated with diets high in energy-dense, high-sodium foods that are often more easily available and affordable, and low in fruits and vegetables. Inadequate nutrition can negatively impact the ESRD patient population by affecting fluid status, blood pressure, electrolytes, and body weight. Food insecurity can be modified by connecting your patient with community resources.

Change Ideas

1. A first step in addressing food insecurity is to screen patients for social determinants of health that affect food insecurity. Screening is most effective when:

   a. Practitioners have access to electronic screening tools in a neutral environment,

   b. The screener has a good relationship with the patient,

   c. The screener understands the triage process once a patient is identified as having a food insecurity barrier.

Use your organization's screening tool to screen all patients. If your organization does not have a screening tool, consider adapting one of the following:

- CMS Health Communities Health-Related Social Needs (HRSN) Screening Tool
- The EveryONE Project Social Needs Screening Tool

2. Establish Your Triage Process
   - Once a patient is screened and determined to have food insecurity, how will you guide them to overcome the insecurity?
   - There are numerous community resource finders and programs that you can help the patient to navigate to find food pantries, discounted foods, programs and more:
     - Neighborhood Navigator: A free online social services search engine
     - 211- Helpline Center: Dial 211 to find information about and referral to available social services in your location.

Secondary Driver 1e: Patient Support through Food Diaries and Trackers

Research shows that keeping a journal, food diary, or log increases the chances of success for people interested in losing weight.

Change Ideas

1. Integrate the use of food diaries or digital food trackers to support continuous patient engagement in the process. There are several food tracker apps available. Suggest that your patient conduct an internet search to find one they are comfortable using.
   - Guide your patients in how to use this application, and view the inputted data during check-ins.
   - Patients may want to consider taking photos of their food to include in their journals, diaries, or food logs, rather than writing descriptions of the food.

Table 3

Primary Driver 2: Exercise

Secondary Driver 2a: Education

Several known benefits of exercise or regular physical activity for the general population pertain to specific areas of concern for the ESRD patient population. These include reduced risk of cardiovascular mortality, improvement in blood pressure control, better control of diabetes, and improvement in health-related quality of life as it relates to physical and psychosocial well-being. A patient's lack of exercise is often related to their practitioner's lack of focus on the importance of increasing physical activity, fear of adverse events related to exercise, or general lack of motivation to exercise given their chronic condition.

Change Ideas

1. For each patient, create a clear and detailed prescription for exercising outside of the clinic.
   - Each documented exercise prescription should include type of exercise, length of sessions, frequency of exercise, and intensity of workout. https://www.kidney.org/atoz/content/stayfit
   - Each prescription should be developed in collaboration with the patient to ensure it addresses their wants and needs.
   - Follow up with patients and alter as needed over time.
2. Meet your patients on their terms.

   Understand that even if some patients are not in physically able to start an exercise program or do not have time outside of their dialysis schedule to attend an exercise class, they can still be physically active.
3. Use It or Lose It!

   Patients who have ESRD are at risk of decreased balance, loss of sensation, fear of falling, decreased strength, and decreased endurance during activities of daily living. Prolonged sitting or staying in bed will cause patients to lose muscle strength and muscle mass. To support patients who suffer from these ailments, consider referring them to a physical therapist who can provide them with specialized assistance.

Secondary Driver 2b: Facility and Home Activities

Patients spend a great deal of time at their dialysis facility each week. Encourage your patients to use their chair time to do physical activity

Change Ideas for the Facility

1. Provide Resistance Bands.
   - Resistance training using resistance or elastic bands is something patients can do independently or with guidance (if available) while receiving their dialysis treatments. Consider supplying bands so patients can use in-center chair time to work toward their weight loss goals.
   - Maintain infection control protocols by providing patients with their own band to bring each time they are scheduled for dialysis treatment. This will minimize the likelihood of patients sharing bands and reduce the risk of spreading germs from patient to patient.
   - Provide supervision and guidance to patients who are unfamiliar with the use of resistance bands to find movements that are both comfortable and effective. If you or your patients want more information about the use of resistance bands, you can utilize the internet to find guides and videos to follow.
2. Make it Competitive!
   - Have you considered hosting an exercise-based competition at your facility? Consider a walking challenge or other inclusive activities. Instead of a step count, use time as a marker, with the goal of 30 minutes a day!
   - Include a prize. It can be as simple as the winning patient(s) being recognized for their accomplishment by featuring their name on a poster or display.
   - At large facilities, consider doing a team approach if many are interested in participating.

Secondary Driver 2b: Facility and Home Activities (continued)

Change Ideas for the Home

Studies suggest that walking 4,000 steps a day provides positive benefits to a dialysis patient!

- Mentor your patients to start a walking exercise routine that that involves increasing steps while doing their normal activities. Ways to increase their steps can be found on the National Kidney Foundation blog, Walking Your Way to Healthier Kidneys.

Table 4

Primary Driver 3: Alternative Approaches

Secondary Driver 3a: Medications

Diabetes is the second most common cause of kidney failure, and diabetic kidney disease (DKD) accounts for more than 40% of all ESRD cases in the United States.

There are many drugs on the market to aid in the management of type 2 diabetes (T2D) as well as weight loss. There is evidence of substantial kidney and cardiovascular benefits in patients with T2D and DKD through the use of SGLT-2 inhibitors or GLP-1 receptor agonists in addition to standard of care practices.

Commonly Known As:
SGLT-2 Inhibitors: Jardiance, Invokana, Farxiga

GLP-1 Receptor Agonists: Ozempic, Trulicity, Wegovy, Victoza, Mounjaro

Change Ideas

Each dialysis facility and nephrologist practice is different depending on individual preferences, organization structure, and the location of the practice.

1. Some dialysis facility nephrologists will prescribe these therapies to their patients, while others refer patients to a primary care physician or endocrinologist to manage the prescription.
2. Identify your facility's practices, and work with your care team to ensure that eligible patients have the opportunity to receive these therapies.

Secondary Driver 3b: Considering Bariatric Surgery

For those patients who are not successful with nutritional restriction and medical therapy, or even those who have far too much weight to lose, the use of bariatric surgery, sleeve gastrectomy or gastric bypass may increase the transplant candidacy of patients with obesity and ESRD. Bariatric surgery in ESRD patients is associated with weight loss ranging from 30% to 73% of excess weight. In addition, those adults receiving dialysis treatment who underwent bariatric surgery were 30% less likely to die of any cause and 82% more likely to undergo kidney transplantation at five years, compared with similar adults receiving usual care.[3]

Plus, most bariatric surgery is covered by Medicare and Medicaid! • Medicare: Read here • Medicaid: Read here

Change Ideas

1. Consider the Alternatives

- The first step in considering the alternatives of bariatric surgery as an option is to understand and address the perspectives of the facility care team regarding the surgery. There is much in the literature supporting bariatric surgery as a bridge to transplantation and its positive effects on comorbidities. It's important to note that
  - Facility physicians and other members of the care team can refer patients to bariatric surgery.
  - A common misconception is that transplant centers routinely refer patients to bariatric surgery; however, only 31% of the nation's transplant programs have weight loss pathways.
- Unsure where to start? Reach out to bariatric surgery centers at your local hospitals and transplant centers; they may be able to provide guidance on their practices
- Educate your patients on their options! Host lobby days and invite bariatric specialists to provide patients an opportunity to ask questions and receive direct guidance on the process.

Things to Remember

1. Patient weight loss first begins with the patient, and the support comes from their family members, friends and their dialysis team.
   - Consider engaging peer mentors or your center's patient facility representative to serve as support agents
   - The path to weight loss is never linear; instead it is a journey of peaks and dips. If patients fall off course and need to get back on track, help them remember the "why" of their journey.
2. Contacting your patient's transplant center of choice is essential! Transplant center staff can be help support the weight loss. Many will help with referral to outside specialists or begin waitlist evaluation engagement as patients near their ideal BMI!
3. As with any change, a best practice is to start small and build improvement toward systemic change. Facilities can start with one test of change and do it well. This will relieve the burden on staff and encourage buy-in when change begins. Measuring and monitoring performance improvement will ensure the facility stays on track with goals. Celebrating every success with staff, patients, families, and community partners at every stage will be contagious. Above all, the best time to start performance improvement is now. With this change package in hand, program leaders, administrators, and staff should ask themselves, "What can I do by next Tuesday to get this started?"

[3] Veroux, M., Mattone, E., Cavallo, M., Gioco, R., Corona, D., Volpicelli, A., & Veroux, P. (2021). Obesity and bariatric surgery in kidney transplantation: A clinical review. *World journal of diabetes*, 12(9), 1563–1575. https://doi.org/10.4239/wjd.v12.i9.1563

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