



Keck School of Medicine of **USC**

Keck Human Rights Clinic

Allen S. Keller, MD
NYU School of Medicine
462 First Avenue, CD 741
New York, NY. 10016
allen.keller@nyumc.org

Parveen Parmar, MD MPH
Keck School of Medicine
University of Southern California
1200 N. State St.
Los Angeles, CA 90033

To whom it may concern,

We are writing to you out of concern for individuals who are currently participating in hunger strikes or have recently ceased their hunger strikes.

Our primary concerns are threefold.

First, prolonged hunger strikes will leave individuals severely malnourished, which will significantly increase their risk from COVID-19. There is considerable evidence that prolonged malnourishment leads to immunosuppression.¹ Evidence suggests this will make these individuals more vulnerable to infection with COVID-19 and at **greater risk of becoming seriously ill or dying if they do contract the disease when malnourished.**²

¹ Marene Johanne Rytter et al., *The immune system in children with malnutrition--a systematic review*, 9(8) PLOS e105017 (2014), <https://pubmed.ncbi.nlm.nih.gov/25153531/>; Phillip C. Calder, *Feeding the immune system*, 72(3) PROC. NUTR. SOC. 299 (2013), <https://pubmed.ncbi.nlm.nih.gov/23688939/>.

² Phillip C. Calder, *Nutrition, immunity and Covid-19*, BMJ NUTRITION, PREVENTION & HEALTH (2020), <https://nutrition.bmj.com/content/early/2020/05/20/bmjnph-2020-000085.citation-tools>; Emma Derbyshire & Joanne Delange, *COVID-19: is there a role for immunonutrition, particularly in the over 65s?* 3(1) BMJ NUTR. PREV. HEALTH. 100 (2020), <https://nutrition.bmj.com/content/early/2020/04/15/bmjnph-2020-000071>; Jae Hyoung Im et al., *Nutritional status of patients with COVID-19*, 100 INT. J. INFECT. DIS. 390 (2020), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7418699/>.

Second, we are concerned that—in direct violation of the ethical rules of the American Medical Association and the World Medical Association—individuals on hunger strikes may be force fed, specifically through the brutal and invasive technique of nasogastric feeding.³ Force feeding is not only recognized as a **profound violation of human autonomy**, it can be **dangerous**.⁴ We are aware of examples in ICE detention facilities of nasogastric feeding done without anesthesia and the improper use of oversized tubes causing cutting and scarring of the esophagus. Medical providers who participate in such procedures do so **in violation of their relevant ethical obligations** and **at great risk to patients**.

Third, if individuals who have recently ceased prolonged hunger strikes are not fed according to established clinical protocols, they risk **life-threatening complications** in the form of Refeeding Syndrome (RFS). As described below, failure to appropriately monitor individuals who were on a prolonged hunger strike or follow established refeeding protocols can be deadly and would represent a **reckless deviation from standard of care**. To this end, attached are two established and widely-recognized refeeding protocols.

Background and Qualifications

Allen Keller, MD

1. I am an Associate Professor at New York University School of Medicine (NYUSoM) in the Departments of Medicine and Population Health, and a Medicine Attending Physician at Bellevue Hospital in New York City. In 1995, I co-founded Bellevue/NYU Program for Survivors of Torture (PSOT) in New York City and from 1995-December 2018 served as PSOT's Director. I am co-founder and Director of the NYU Center for Health and Human Rights (CHHR).
2. From 2009 to 2016, I served as Co-Chair of the Immigration Detention Health Advisory Group for the U.S. Department of Homeland Security Immigration and Customs Enforcement NGO working group. I am the author, coauthor and editor of nearly 100 scholarly publications on the evaluation and treatment of victims of trauma/human rights abuses and prison conditions, including the health consequences of immigration detention.⁵ To date, I have visited over 30 immigration detention facilities throughout the United States.

³ World Medical Association, *WMA Condemns All Force Feeding* (Oct. 16, 2020), <https://www.wma.net/news-post/wma-condemns-all-forced-feeding/>; Letter from Jeremy Lazarus to Chuck Hagel (Apr. 25, 2013), <http://media.miamiherald.com/smedia/2013/04/30/07/58/FRs25.So.56.pdf>.

⁴ Sondra S. Crosby et al., *Hunger Strikes, Force-feeding, and Physicians' Responsibilities*, 298(5) JAMA 563 (2007), <https://pubmed.ncbi.nlm.nih.gov/17666678/>.

⁵ See, e.g., M. Granski, A. Keller, & H. Venters, *Death Rates among Detained Immigrants in the United States*, 12 INT. J. ENVIRO. RESEARCH & PUB. HEALTH 14414 (2015).

3. I have served as a medical expert on various investigations of immigration detention facilities. In 2004, I was appointed as an expert by the U.S. Commission on International Religious Freedom (USCIRF) for their congressionally mandated study on the expedited removal process for asylum seekers, which examined all aspects of the process including immigration detention.⁶ In 2017, I served as a medical expert for a review conducted by Human Rights Watch on medical care and deaths of immigrants in detention entitled “Systemic Indifference: Dangerous & Substandard Medical Care in US Immigration Detention.”⁷
4. I have also worked with approximately 15 individuals on prolonged hunger strikes. As such, I have direct knowledge of the health consequences of prolonged hunger strikes on the human body, as well as the risks associated with the cessation of hunger strikes.
5. Throughout my career, when possible, I have engaged and worked with Immigration Naturalization Services (INS) and subsequently the U.S. Department of Homeland Security, including Immigration and Customs Enforcement (ICE), to ensure safe and humane immigration detention policies and practices.

Parveen Parmar, MD MPH

6. I am an American physician licensed to practice in the State of California, practicing in the Los Angeles County + University of Southern California (LAC+USC) Emergency Department. I have been board certified to practice emergency medicine for 11 years, all 11 of which I have worked at a Level 1 trauma center, taking care of a variety of patients including those with critical illness. I am an Associate Professor of Clinical Emergency Medicine at the University of Southern California, and Chief of the Division of Global Emergency Medicine at the Keck School of Medicine, University of Southern California. I teach emergency medicine, teaching both medical students and residents. I regularly care for detained patients in the LAC+USC Jail Emergency Department and thus am familiar with standards of care for the provision of health care in detention. I also routinely work with a large proportion of patients with emergency health needs and critical illness at the LAC+USC Jail emergency department and in the main emergency department. I have also reviewed multiple records of health care delivered specifically in U.S. Immigration and Customs Enforcement (ICE) detention and am familiar with standards of care in this setting—including the ICE Performance-Based National Detention Standards 2011 (as revised in 2016).
7. Prior to my time at LAC+USC, I worked at Brigham and Women’s Hospital, a Harvard-affiliated hospital, as an emergency physician for 8 years. I taught emergency medicine to

⁶ U.S. Comm’n on Int. Religious Freedom, *Report on Asylum Seekers in Expedited Removal* (Feb. 8, 2005), <https://www.uscirf.gov/reports-briefs/specialreports/report-asylum-seekers-in-expedited-removal>.

⁷ Human Rights Watch, *Systemic Indifference: Dangerous & Substandard Medical Care in US Immigration Detention* (2017), <https://www.hrw.org/report/2017/05/08/systemic-indifference/dangeroussubstandard-medical-care-us-immigration-detention>.

medical students at Harvard Medical School, and residents in the Harvard Affiliated Emergency Medicine Residency Program. I currently serve as the Director of the International Emergency Medicine Fellowship Program at Brigham and Women's Hospital. Additionally, I was an Assistant Professor at Harvard Medical School and the Harvard School of Public Health prior to my appointment at the University of Southern California, where I taught coursework specific to health of refugees and asylum seekers, global health, and humanitarian aid.

8. From 2008 to 2019, I served as faculty at the Harvard Humanitarian Initiative—a university-wide center involving multiple entities within the Harvard community that provide expertise in public health, medicine, social science, management, and other disciplines to promote evidence-based approaches to humanitarian assistance. I am a public health researcher and hold a Master of Public Health from the Harvard School of Public Health from the department of Global Health and Population.
9. I have reviewed cases of individuals on hunger strike in ICE detention facilities, including review of over one thousand pages of medical records. I have also reviewed thousands of pages of death reviews concerning deaths in ICE detention from 2011-2018 as a part of an ongoing study on the health systems issues leading to harm in ICE detention facilities.

Individuals on Prolonged Hunger Strike Are at Significantly Higher Risk of COVID-19 and Require Specific Medical Care

10. Prolonged hunger strikes cause progressively painful and debilitating symptoms including marked weakness and exhaustion to the point of collapsing, headaches, dizziness, decreased cognitive functioning, chest pain, shortness of breath, musculoskeletal pain, abdominal pain, nausea, vomiting, and constipation. Experts suggest that medical monitoring should begin when an individual has lost 10% of their body weight, or sooner should they develop significant symptoms.⁸
11. Prolonged hunger strikes cause dangerous electrolyte abnormalities and acidification of the blood as the body's equilibrium becomes dramatically and progressively unbalanced. During prolonged hunger strikes, there is a significant decline in essential nutrients. The body responds to this starvation by metabolizing fat and muscle protein. In other words, the body begins to eat itself.
12. Individuals on hunger strike may also develop vital sign abnormalities (low blood pressure, high heart rate) even early in their course. The level to which a hunger strike affects an individual depends on their age, weight, and pre-existing medical conditions.

⁸ See Crosby et al., *supra* note 4.

Thus, individuals on hunger strike require close monitoring of vital signs, electrolytes, cardiac rhythm, and close medical observation for signs of deterioration.

13. Review of thousands of pages of medical records concerning the care of individuals in ICE detention, both on hunger strike and not, as well as review of dozens of Detainee Death Reviews from 2011-2018 has shown a pervasive pattern of substandard health care, including, prominently, clinicians failing to act on abnormal vital signs and critical illness. Thus, our professional recommendation is that **individuals on prolonged hunger strike be removed from detention facility care as they are at high risk of medical deterioration.**
14. Additionally, individuals on prolonged hunger strike may develop abnormally low heart rate and body temperature, they may bleed more easily as their ability to form clots is harmed, and their immune system may be compromised. The impact of a hunger strike on the individual's immune system is of particular concern given the high risk of infection with COVID-19 in ICE detention facilities.⁹ **Individuals who have been on prolonged hunger strikes that have left them severely malnourished are likely immunocompromised, and thus at higher risk of both infection with COVID-19 and severe consequences if infected.**

Individuals Should Not Be Placed in Solitary Confinement Because they Are on Hunger Strikes

15. In quite a few cases, individuals on hunger strikes have been placed in isolation that is the equivalent of solitary confinement. This poses grave risks to both their mental and physical health, which is particularly concerning given the weakened state produced by malnourishment.¹⁰
16. The use of prolonged isolation will be akin to torture for people already suffering from serious mental illness.¹¹
17. Isolation is especially harmful to people with serious mental illness because it can severely exacerbate an existing condition or cause a recurrence of a prior condition. For example, individuals who are at risk of suicide are likely to become more suicidal in solitary confinement, while people with mood disorders face the very real possibility of

⁹ Danielle Gordon, Michael Drescher, and Shachaf Shiber, *Security hunger-strike prisoners in the emergency department: physiological and laboratory findings*, 55 J. EMERG. MED. 185 (2018).

¹⁰ Justin D. Strong et al., *The body in isolation: The physical health impacts of incarceration in solitary confinement*, 15(10) PLOS ONE. 1 (2020), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7546459/pdf/pone.0238510.pdf>.

¹¹ See, e.g., *Solitary Confinement Should Be Banned In Most Cases*, UN Expert Says, UN News (Oct. 18, 2011), <https://news.un.org/en/story/2011/10/392012-solitary-confinement-should-be-banned-most-cases-un-expert-says>.

worsening symptoms or breakdowns. This can last long after the period of isolation has ended.¹²

18. Such exacerbation of psychological symptoms can result in severe harm.
 - a. First, exacerbation of underlying mental illness can lead to increased risk of self-harm, including suicidality.
 - b. Second, mental health decompensation, particularly when severe, can significantly interfere with an individual's ability to participate in their immigration case.
 - c. Third, significant increases in stress and sleeplessness may interfere with an individual's immune function, leaving them more vulnerable to illness.¹³
19. Similarly, prolonged placement in solitary confinement can lead to serious physical health consequences, including the deterioration of chronic health conditions.¹⁴ A recent study found that time spent in solitary confinement increased the risk of death from all causes in the year after someone was released, with the effect become more dangerous as the time in solitary increased.¹⁵
20. For these reasons, as a medical matter, individuals, particularly those with serious mental health conditions, should not be placed in solitary confinement simply because they are on hunger strike.

**Force Feeding Individuals Is a Violation of Medical Ethics
and Puts Them at Grave Risk**

21. In past cases, including some that one of us has worked on directly, ICE has forcibly fed people who are on prolonged hunger strikes, doing so through a highly invasive technique known as nasogastric feeding.
22. Nasogastric feeding is painful and can be dangerous when initiated in an individual who does not consent due to the force required to insert a nasogastric tube in this

¹² Fatos Kaba, *Solitary confinement and risk of self-harm among jail inmates*, 104(3) AM. J. PUB. HEALTH. 442 (2014), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3953781/>; Justin D. Strong, *Psychological Distress in Solitary Confinement: Symptoms, Severity, and Prevalence in the United States, 2017-2018*, 110(S1) AM. J. PUB. HEALTH. S56 (2020), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7546459/>.

¹³ See, e.g., S.C. Segerstrom & G.E. Miller, *Psychological Stress and the Human Immune System: A Meta-Analytic Study of 30 Years of Inquiry*, 130 PSYCH. BULLETIN 601 (2004), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1361287/>; Michael R. Irwin et al., *Sleep Disturbance, Sleep Duration, and Inflammation: A Systematic Review and Meta-Analysis of Cohort Studies and Experimental Sleep Deprivation*, 80 BIOL. PSYCH. 40 (2016), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4666828/>.

¹⁴ See, e.g., Brie Williams et al., *The Cardiovascular Health Burdens of Solitary Confinement*, 34 J. GENERAL INTERNAL MED. 1977 (2019), <https://link.springer.com/article/10.1007/s11606-019-05103-6>.

¹⁵ Lauren Brinkley-Rubinstein et al., *Association of Restrictive Housing During Incarceration With Mortality After Release*, 2(10) JAMA NETW. OPEN e1912516 (2019), <https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2752350>.

circumstance. For example, nasogastric feeding can lead to scarring of the esophagus. In the past, one of us has worked on cases where individuals in ICE custody were forcibly fed without any anesthesia or numbing agent, such as lidocaine gel or cetacaine spray. This caused significant pain.

23. Furthermore, both the American Medical Association and World Medical Association are clear that involuntarily feeding someone is a violation of medical ethics. The Declaration of Malta, adopted by the World Medical Association, states unequivocally: “Forced feeding is never ethically acceptable.”¹⁶ The American Medical Association has stated that “force feeding of detainees violates core ethical values of the medical profession” and endorsed the WMA’s “unequivocal” position.¹⁷ All care should center on the best interests of the patient only. Patients in all settings have the right to accept or refuse care, even when that care may save their lives—this is a standard upheld by the major medical societies nationally and globally.¹⁸
24. To understand why authorities on medical ethics are unanimous and unequivocal on this point, it is crucial to distinguish between hunger strikes and suicidality. In the medical profession, an individual who states that they wish to commit suicide will not be permitted to do so, and legitimate limitations can be placed on their autonomy.¹⁹ However, if a competent adult chooses for other reasons to undertake a course of action that can lead them to grave harm, a medical professional’s duty is to advise them of the risks, but *in no circumstances* to force care upon them.²⁰ A hunger strike is an expression of free speech/political protest by an individual *who is not seeking to kill themselves*. As such, even if a prolonged hunger strike can cause them serious harm, even death, a medical professional cannot force them to accept care—this is a globally recognized principle of medical ethics.
25. Instead of forcibly feeding someone, in contravention of medical ethics and at risk to their health, from a medical perspective the proper approach is to permit hunger strikers to meet with a physician who is fully independent from ICE. This is because scientific data show that a good relationship with a physician who is fully independent from

¹⁶ World Medical Association, *WMA Declaration of Malta on Hunger Strikers* ¶ 23 (2017), <https://www.wma.net/policies-post/wma-declaration-of-malta-on-hunger-strikers/>.

¹⁷ Carol Rosenberg, *AMA opposes forced feedings at Guantánamo*, MIAMI HERALD (Nov. 6, 2014), <https://www.miamiherald.com/news/nation-world/world/americas/guantanamo/article1950859.html>.

¹⁸ World Medical Association, *WMA International Code of Medical Ethics* (2006), <https://www.wma.net/policies-post/wma-international-code-of-medical-ethics/>; American Medical Association, *Code of Medical Ethics* (2019), <https://www.ama-assn.org/system/files/2019-06/code-of-medical-ethics-chapter-2.pdf>.

¹⁹ Individuals who are suicidal, homicidal, or gravely disabled and unable to care for themselves can be placed on an involuntary hold. Individuals who do not meet these criteria and have capacity to understand the risks, benefits, and alternatives of any medical procedure have the right to refuse this, even if that treatment is life-saving. This is the standard of care nationally.

²⁰ World Medical Association, *supra* note 16, ¶ 5 (“Physicians must respect the autonomy of competent individuals, even where this will predictably lead to harm.”).

detention authorities can save the life of an individual on hunger strike without infringing on their autonomy.²¹

26. Proper counseling by an outside physician can thus avoid the false choice between life and protest that is too often used to justify the unethical process of force feeding. Studies have found that when individuals develop a good therapeutic alliance with a physician who is both not affiliated with the detention facility and who has expertise in the management of individuals on hunger strike, individuals often accept life-saving sugared and salted liquids, along with vitamin supplementation, which can prevent the longest term and deadly effects of a hunger strike while allowing them to continue their political protest.²²
27. This care is best given *outside* of the detention facility and from a medical perspective an individual on a prolonged hunger strike should be taken for an evaluation by an outside medical provider.
28. A physician's duties to an individual on hunger strike include:
 - a. Determining whether or not the individual is suicidal and has capacity to make the decisions regarding their health.
 - b. Creating an alliance that respects this individual's right to protest and aligns with them to keep them alive and well as long as possible, while giving them an unbiased understanding of the impact of starvation, short and long term on their body. *At no point should the physician engage in coercive behavior*, all clinical discussions should be unbiased and balanced, presenting effects of starvation as well as mitigation strategies.
 - c. Physicians should offer salted and sugared liquids, vitamin supplementation, and IV fluids to individuals as a means of avoiding permanent impacts of a hunger strike. The cited publications below offer guidelines for how a physician might best serve a patient on hunger strike.²³

Refeeding Syndrome (RFS) Is a Life-Threatening Condition Affecting Individuals Who Do Not Receive Proper Treatment Upon Ending a Prolonged Hunger Strike

29. Upon cessation of a prolonged hunger strike, the body is not prepared to handle the abrupt reintroduction of a normal diet. Attempting to do so can cause severe, life-threatening consequences, including Refeeding Syndrome (RFS). RFS is a well-documented and potentially life-threatening condition.

²¹ Crosby et al., *supra* note 4.

²² John W. Kalk & Yosuf Veriava, *Hospital management of voluntary total fasting among political prisoners*, 337(874) *The Lancet* 660-662 (1991); Gordon et al., *supra* note 9.

²³ See Gordon et al., *supra* note 9; Kalk & Veriava, *supra* note 22.

30. The consequences of RFS can be grave. As one study noted: “Too rapid refeeding, particularly with carbohydrate may precipitate a number of metabolic and pathophysiological complications, which may adversely affect the cardiac, respiratory, haematological, hepatic and neuromuscular systems leading to clinical complications and even death.”²⁴

31. Problems related to RFS include:

- a. Acute thiamine deficiency leading to Wernicke’s encephalopathy, an acute neurological condition that **can be fatal**.²⁵
- b. “Wet” beriberi, another form of thiamine deficiency, which affects the cardiovascular and circulatory systems and **can be fatal**. It can lead to cardiomegaly (enlarged heart), cardiomyopathy (a disease of the heart muscle that interferes with the ability of the heart to deliver blood to the body), heart failure, and a rapid heart rate;
- c. “Dry” beriberi, another form of thiamine deficiency, which affects the neurological system. It can cause neuropathy, which is a nervous system dysfunction that can result in numbness and weakness;
- d. Hypokalemia, or low levels of potassium in the blood, which can lead to arrhythmia (abnormal cardiac rhythms) and subsequently cardiac arrest;²⁶
- e. Hypomagnesaemia, or low levels of magnesium in the blood, which (particularly in conjunction with hypokalemia) can produce seizures, tremors, tetany (spasms, including of the facial muscles), arrhythmia, vomiting, and weakness;²⁷
- f. Hypophosphatemia, or low levels of phosphate in the blood, which can lead to respiratory failure, heart failure, and muscle weakness;²⁸
- g. The retention and buildup of fluids in the body;²⁹
- h. As well as abnormally rapid heart rate, rapid breathing (tachypnea), and shortness of breath (dyspnea).³⁰

32. These effects can be **long-term or even permanent**.

33. The risk of RFS increases greatly based on the (1) length of the hunger strike, (2) amount of weight lost relative to total body weight, and (3) starting body weight. One study found that approximately half of severely malnourished patients developed some form of refeeding syndrome.³¹

²⁴ Z. Stanga et al., *Nutrition in clinical practice—the refeeding syndrome: illustrative cases and guidelines for prevention and treatment*, 62 EUR. J. CLINICAL NUTRITION 687 (2008).

²⁵ *Id.* at 689.

²⁶ *Id.*

²⁷ *Id.*

²⁸ *Id.*

²⁹ *Id.*

³⁰ *Id.*

³¹ *Id.*

34. A comprehensive study of RFS³² has identified the following risk factors:
- i. Any one of the following:
 - i. BMI less than 16 kg/m².
 - ii. Weight loss of over 15% in the preceding 3-6 months resulting, for example, from underlying medical conditions, decreased access to food, hunger striking, or other unmonitored weight loss.
 - iii. Very little or no nutritional intake for over 10 days.
 - iv. Low levels of serum potassium, phosphate, or magnesium before being fed.
 - j. Or Any two of the following:
 - i. BMI less than 18.5 kg/m²
 - ii. Weight loss of over 10% in the preceding 3-6 months.
 - iii. Very little or no nutritional intake for over 5 days.
 - iv. History of alcohol or drug abuse.
35. Further, when weight loss is greater than 20% of the body or a hunger strike has lasted more than 28 days, the individual is at exceptionally high risk of life-threatening complications, and **should be hospitalized**.³³

Established Protocols to Prevent RFS

36. Given the life-threatening danger of RFS, for individuals who fall into risk categories for RFS, it is absolutely essential that their refeeding be closely monitored and follow established protocols. We attach two descriptions of such protocols as **Exhibits A and B** to this letter.
37. Though it is crucial that in cases where there is a risk of RFS these protocols be followed closely, the most important elements of these protocols consist of:
- a. Close monitoring of vital signs and weight, clinical examination, and cardiac monitoring;
 - b. Electrolytes daily or twice a day;
 - c. A gradual increase of nutrients, consisting of a balance of 50–60% carbohydrates, 30–40% fat, and 15–20% protein;
 - d. A gradual increase in fluids; and
 - e. Thiamine supplementation.

³² M. Eichelberger et al., *Management of patients during hunger strike and refeeding phase*, 30:11-12 NUTRITION 1372, 1373 (2014).

³³ *Id.* at 1377.

38. As one study puts it: “To minimize the risk for RFS, close clinical and laboratory monitoring during the first 10 d after hunger strike cessation is *mandatory*.”³⁴ This is also our professional judgement.
39. Monitoring is especially crucial since RFS often does not develop right away. Instead, it often develops around 3 days after an individual begins to eat again.³⁵
40. For individuals who have been on a hunger strike for approximately 28 days or longer, failure to closely monitor such individuals or follow established refeeding protocols represents **a reckless deviation from standard of care**.
41. Finally, in the midst of the ongoing COVID-19 pandemic where the risk in detention facilities is already exceptionally high, failure to protect against the development of RFS—particularly when combined with underlying severe malnourishment—can place an individual at exceedingly high risk of contracting a severe, life-threatening COVID-19 infection and complications.

Sincerely,



Allen S. Keller, MD
Associate Professor of Medicine and Population,
New York University Grossman School of Medicine
Adjunct Associate Professor, NYU Gallatin School of Individualized Study
Founder, Bellevue/NYU Program for Survivors of Torture
Director, NYU Grossman School of Medicine Center for Health and Human Rights
Attending Physician, Department of Medicine, Bellevue Hospital



Parveen Parmar, MD MPH
Chief, Division of Global Emergency Medicine
Associate Professor, Clinical Emergency Medicine
Keck School of Medicine
University of Southern California
Attending Physician, LAC+USC Department of Emergency Medicine

³⁴ *Id.* at 1373 (emphasis added).

³⁵ Stanga et al., *supra* note 24, at 689.

EXHIBIT

A

Table 4
Recommendations for management of RFS in at-risk adults [11,14]

General recommendations				
<ul style="list-style-type: none"> • Be aware that patients on hunger strike for >10 d are at risk • Provide adequate assessment, interdisciplinary care plans, and follow-up • Appreciate that risks apply whether patients are fed by the oral, enteral, or parenteral route • Carefully restore circulatory volume: monitor heart rate and fluid balance • Energy intake should be instituted carefully and gradually increased over 1 to 10 d • Empirical supplementation of electrolytes and vitamins should be started before feeding is initiated 				
Days	Energy (by all routes; daily)	Electrolytes/Vitamins/Minerals	Fluids/Sodium	Monitoring
1–3	10 kcal/kg* and slowly increase to 15 kcal/kg*	Daily prophylactic electrolyte supplementation (unless prefeeding serum levels are normal): - Phosphate 0.5–0.8 mmol/kg - Potassium 1.0–2.2 mmol/kg - Magnesium 0.3–0.4 mmol/kg Supplement micronutrients: - 200–300 mg thiamine IV 30 min before first eating, and then 200–300 mg IV or orally daily - Vitamins: 200% of RDI - Minerals and trace elements: 100% of RDI (no iron supplementation in the first week)	Restrict daily fluids to 20–30 ml/kg (restrict to sufficient to maintain renal function, to replace deficits or losses, and to avoid weight gain → zero fluid balance) Salt: restrict daily sodium intake <1 mmol/kg/d (if edema develops, restrict further)	Serum electrolytes (K, Mg, PO ₄) and glucose: - Day 1: 2x/d - Day 2–3: 1x/d Monitor daily: - Body weight (fluid balance) - Clinical examination [†] - Biochemistry [‡] - Preferably ECG monitoring in severe cases
4–6	15–20 kcal/kg*	Continue electrolyte supplementation to restore normal serum levels: - If phosphate <0.6 mmol, give 30–50 mmol phosphate IV over 12 h - If potassium <3.5 mmol, give >20–40 mmol KCl IV over 4–8 h - If magnesium <0.5 mmol, give 24 mmol MgSO ₄ IV over 12 h Supplement micronutrients: Vitamins: 200% of RDI Minerals and trace elements: 100% of RDI (no iron)	Fluids 25–30 mL/kg/d (maintain zero fluid balance)	Serum electrolytes: 1x/d Monitor daily: - Body weight (fluid balance) - Clinical examination [†] - Biochemistry [‡]
7–10	20–30 kcal/kg*	Electrolytes, minerals, trace elements, and vitamins substitution as above. Iron should be supplemented from day 7 onward.	Fluids 30 mL/kg/d	Body weight: 2x/wk Clinical examination [†] : 1x/d Biochemistry from day 7 onward [‡] : 1x/wk

ECG, electrocardiogram; IV, intravenous; RDI, reference daily intake

* Nutrients: carbohydrates 50%–60%, fat 30%–40%, and protein 15%–20%.

[†] Edema, blood pressure, heart rate, and cardiovascular and respiratory systems.

[‡] Phosphate, magnesium, potassium, sodium, calcium, glucose, urea, creatinine, (thiamine: optional on day 1).

medical complications [25,26,30–33]. When looking at the risk for medical complications, it is fundamental to account for the weight of the starving prisoners before the hunger strike. The metabolic adaptive response to starvation is different between individuals who are obese and those who are of normal weight. Due to the earlier active protein breakdown in lean individuals compared with obese, the rate of weight loss is greater in the lean population [25,26]. Generally speaking, a hunger strike may lead to death within 50 to 75 d in individuals with normal body weight [27].

The laboratory parameters at admission revealed only two cases of severe electrolyte disturbance (hypokalemia), probably due to the relatively short time span of the hunger strike. Severe electrolyte disorders have been described in the literature after a hunger strike of 30 d [10,16,34].

All patients were closely monitored during the refeeding phase. The slow but steady increase of the oral energy intake lasted 10 d, based on the regimen recommended by the published guidelines [11,14]. Fluid and sodium restriction were

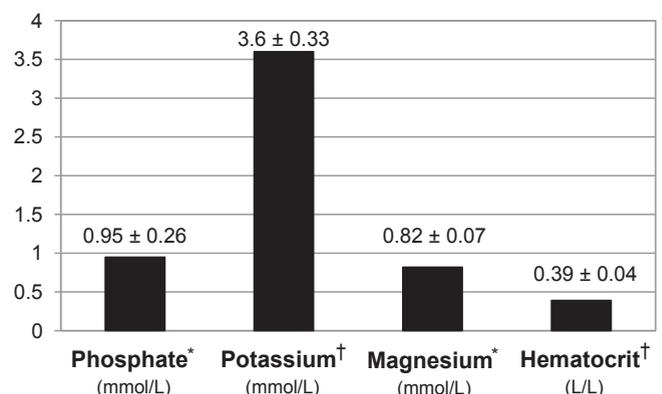


Fig. 3. Lowest laboratory parameter of group A during refeeding phase (mean ± SD). *Values calculated from 22 episodes. †Values calculated from 24 episodes.

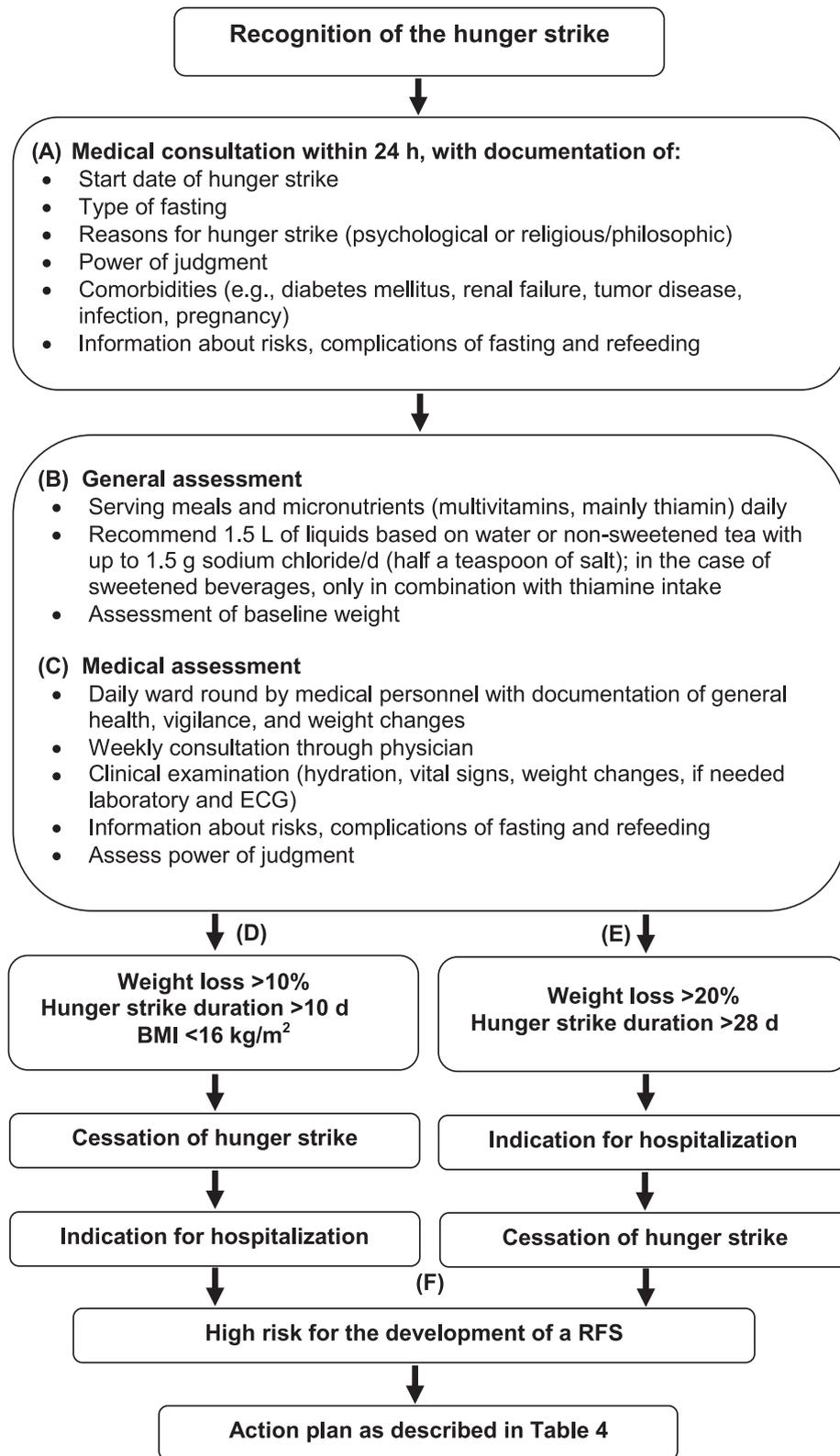


Fig. 4. Algorithm for medical management of hunger strike [35–37]. Important parameters to be considered and documented during the first medical consultations in a detainee with suspicion of hunger strike (A). If the hunger strike has been confirmed, a general and medical assessment should be performed in regularly intervals (B, C). At each time, the power of judgment should be assessed and the detainee must be informed about risks as well as complications of continuing the hunger strike. In the follow-up period (D), if the detainee reaches a weight loss >10% or a hunger strike duration >10 d or a BMI <16 kg/m² at the prison and wants to stop the hunger strike, hospitalization is required because of high risk for development of RFS (F). In the follow-up period (E), if the detainee reaches a weight loss >20% of the normal body weight or the hunger strike duration >28 d at the prison, hospitalization is required for close medical monitoring. If the detainee wants to stop the hunger strike he or she will be at high risk for the development of RFS (F). BMI, body mass index; ECG, electrocardiogram; RFS, refeeding syndrome.

EXHIBIT

B

Table 2 Ideal timing of interventions in patients at risk of the refeeding syndrome (adapted from World Health Organization, 1999)

Early treatment		Rehabilitation
Days 1–3	Days 4–6	Days > 10
Resuscitation	Repair of metabolic derangements	Repletion of tissue
Treat to prevent <ul style="list-style-type: none"> ● Hypoglycaemia ● Hypothermia ● Dehydration Anticipate salt and water intolerance and mineral and micronutrient deficiencies. Give prophylactic supplements (for example, thiamine)	Monitor and treat any fluid, electrolyte, mineral and micronutrient imbalances that may develop	Continue mineral and micronutrient supplements as required
	Treat underlying disease (for example, infection). Commence feeding at 30% of requirements, increasing cautiously	Increase feeding to replete lost tissue Prepare for discharge

Table 3 Refeeding guidelines—for prevention and treatment of the refeeding syndrome in adult patients at risk*General recommendations*

Raise awareness within all health care personnel

- Be aware of patients at risk
- Provide adequate assessment, interdisciplinary care plans, and follow up
- Appreciate that risks apply whether patients are fed by the oral, enteral or parenteral route
- Carefully restore circulatory volume: monitor pulse rate and fluid balance
- Energy intake should be instituted carefully and gradually increased over 4–10 days
- Empirical supplementation of the electrolytes and vitamins can be started before feeding is initiated

Days 1–3

1. Energy (by all routes): start at 42 kJ/kg/day (10 kcal/kg/day) and slow increase to 63 kJ/kg/day (15 kcal/kg/day); 50–60% carbohydrates, 30–40% fat, and 15–20% protein.
2. Electrolytes: measure serum concentrations basally, 4–6 h later, and daily during feeding (see below). Supplement prophylactically (unless pre-feeding plasma levels are high), in most cases by the intravenous route initially. Amounts depend on patient size and plasma concentrations, but usual daily requirements are:
 - Phosphate 0.5–0.8 mmol/kg/day
 - Potassium 1–3 mmol/kg/day
 - Magnesium 0.3–0.4 mmol/kg/day. Levels should be monitored frequently and supplements increased if necessary.
3. Fluid: restrict to sufficient to maintain renal function, to replace deficits or losses, and avoid weight gain, that is achieve zero balance. Patients usually need 20–30 ml/kg/day.
4. Salt: restrict sodium to <1 mmol/kg/day. If oedema develops, restrict further.
5. Minerals and trace elements: 100% DRI. Iron should not be supplemented in the first week.
6. Vitamins 200% DRI. Give 200–300 mg thiamine i.v. at least 30 min before feeding, and 200–300 mg daily i.v. or orally till day 3.
7. Monitor daily
 - Body weight (fluid balance).
 - Clinical examination: oedema, blood pressure, pulse rate, cardiovascular and respiratory systems.
 - Biochemistry: phosphate, magnesium, potassium, sodium, calcium, glucose, urea, creatinine, (thiamine).
 - Preferably ECG-monitoring in severe cases.

Days 4–6

1. Energy (by all routes): 63–84 kJ/kg/day (15–20 kcal/kg/day); 50–60% carbohydrates, 30–40% fat, and 15–20% protein.
2. Electrolytes: continue supplementation as above, giving more or less according to plasma concentrations. If the refeeding syndrome is already established, aim to restore normal levels. If
 - PO_4^{2-} <0.6 mmol/l—give 30–50 mmol phosphate (eg. Phosphates Polyfusor) i.v. over 12 h.
 - Mg^{2+} <0.5 mmol/l—give 24 mmol MgSO_4 i.v. over 12 h.
 - K^+ <3.5 mmol/l—give >20–40 mmol KCl i.v. over 4 h.
 Remeasure and repeat if necessary.
3. Minerals and vitamins: as for days 1–3.
4. Fluid: depending on hydration, weight change and losses. Patients usually need 25–30 ml/kg/day.
5. Monitor daily: as for days 1–3.

Days 7–10

1. Energy (by all routes): 84–132 kJ/kg/day (20–30 kcal/kg/day); 50–60% carbohydrates, 30–40% fat, and 15–20% protein.
2. Electrolytes, minerals and vitamins: as above. Iron should be supplemented from day 7 onwards