International Nutrition Survey 2014

Case Report Forms and Instructions: Burn Units

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Methods Centre Contacts

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All questions related to data collection procedures should be directed to the Project Assistant.

General Instructions

These Case Report Forms (CRFs) are for burn ICUs only. If you are not a burn ICU, refer to the Case Report Forms non-burn ICUs.

Completing the Case Report Forms:

- All data in these CRFs is to be taken from original source documents (e.g. the patient's hospital chart).
- These paper CRFs are important records and must be completed; they will aid you in responding to data queries, and may in some cases be considered source documentation (if patient records are unavailable) for purposes of source verification. Accordingly, please ensure they are complete.
- All data will be entered onto a secure web-based electronic data capture system called REDCap and transferred to the Methods Centre
- All data fields should be completed

Important Notes about CRFs:

- ICU and burn unit is used interchangeably throughout these forms
- All dates must be recorded in the format YYYY-MM-DD
- All times must be recorded using the 24 hour (military) clock (HH:MM); midnight will be 00:00 hrs
- Study days begin and end at **midnight**, regardless of when your flow sheet begins and ends
    - If your patient records are computerized, if the default start time is not midnight, you should be able to set the start time to midnight for the purposes of your data collection
- Study days are defined by the calendar clock (i.e. 00:00 – 23:59 hrs)
    - Study Day 1 date = ICU admission date and time until 23:59 that day
    - Study Day 2 date = the subsequent day starting at 00:00 until 23:59
    - Study Day 1, as well as the last day in the ICU, may not be full 24 hour periods
- *Example 1:* Patient admitted to ICU Sept 9 @ 02:00
    - Day 1 = September 9 (02:00 until 23:59)
    - Day 2 = September 10 (00:00 until 23:59
    - Day 3 = September 11 (00:00 until 23:59)
- *Example 2:* Patient admitted to ICU Sept 8 @ 12:00, discharged Sept 11 @ 18:00
    - Day 1 = September 8 (12:00 until 23:59)
    - Day 2 = September 9 (00:00 until 23:59)
    - Day 3 = September 10 (00:00 until 23:59)
    - Day 4 = September 11 (00:00 until 18:00)
- If you do not use the calendar clock (00:00 – 23:59) to enter your data into REDCap, you may receive errors indicating you have too much or too little data; you will be unable to finalize such patients until these errors are resolved.
- Anywhere in the CRF that "Other, specify" is indicated and/or has been selected, there **must** be an entry on the line provided further describing what "other" means.

Entering Data Online:

- The Web Based Data Capture System for the International Nutrition Survey can be accessed by following the REDCap login link on the www.criticalcarenutrition.com website, or directly at https://ceru.hpcvl.queensu.ca/EDC/redcap/
- Please see the International Nutrition Survey's REDCap Instruction Manual for more information

Site Registration 1

Upon completion of the online site registration form you will be assigned a username and password. New participants will receive their new usernames and passwords via a confirmation email. If you participated in the survey in 2011 and/or 2013, your username from 2011 and/or 2013 will be reactivated when you sign-up **with the same e-mail address as you used for INS 2011 and/or 2013** and a new password will be emailed to you to reactivate your account.

- A username & password will be provided only to those who are registered to participate in the study
- The site and user registration must be completed **once** for each ICU
    - Please ensure only one person registers each ICU, and provides all the contact details for each individual from that ICU that needs a username and password
- If you have multiple ICUs:
    - You should register each ICU separately; you will receive a separate username for each ICU
        - Register ICUs separately even if you only want one site report; if you only want one site report, inform the Project Assistant at the time of site/user registration
- All users must log onto the website using their own username and password prior to data entry. **Please keep track of your password to avoid having to contact IT at CERU.**

Primary REDCap Users	Specify who is going to be involved in collecting and entering study data, and coordinating the study. Each person indicated here will receive a REDCap username and password.
Ethics Approval	Indicate if your site required ethics approval to participate in the INS 2014.
Hospital Name	Specify your hospital's full name, without abbreviations, as you wish for it to appear on your Site Report.
Hospital Type	A teaching hospital is a hospital that provides training to medical students and residents. If your hospital only has occasional medical students/residents, select non-teaching hospital.
Location	Specify the city, province/state and country your hospital is located in.
Size of Hospital	Specify the number of beds in your hospital.
Multiple ICUs	Indicate whether or not your hospital has multiple ICUs. Select yes even if only one of these ICUs is participating in the study.
ICU Name	Specify your ICU's name as you wish for it to appear on your Site Report.
Participation in Previous Years	Indicate whether or not this ICU has participated in the INS in previous years. You may need to ask your colleagues if you are unsure.
ICU Type	Indicate the ICU structure. Open ICUs are sites where patients are under the care of an attending physician (e.g. internist, family physician, surgeon) with intensivists (i.e. physician with training in critical care) consulted as necessary. Closed ICUs are sites in which patients are under the care of an intensivist or care is shared between the intensivist and another attending physician.
Case Types	Please indicate all case types applicable to this ICU.
ICU Medical Director	Indicate whether or not your ICU has a designated Medical Director.
Burn Unit	Please indicate whether or not your ICU is a burn unit. **If you are NOT a burn unit, make sure you are using the Case Report Forms for non burn ICUs.** Definition of a burn unit: an intensive care unit OR unit that looks after patients with thermal injuries/burns. This DOES NOT include skin conditions (ie. non-burn plastics, Steven-Johnson Syndrome, pressure ulcers, chronic wounds).
Number of ICU Beds	Indicate how many beds your burn unit contains.
Dietitian in ICU	This is a measure of the amount of time the dietitian(s) is/are dedicated to your burn unit relative to a full time position. Eg.: A full-time equivalent (FTE) of 1.0 means that one dietitian works in the ICU full time (i.e. 5 full days per week). A FTE of 0.5 means that one dietitian is in the ICU half time, or two and a half days a week. A FTE of 1.0 could also mean that two dietitians each work half time (0.5 FTE each) in the ICU.

International Nutrition Survey 2014

ICU Name: _____

Site Registration 1

1. Primary REDCap Users: *(Usernames and passwords to access the online data entry system will be assigned to each of the individuals listed below.)*

First name	Last name	Email	Phone	Role in ICU	Signature

To register your site, please provide the following information.

2. Did you require ethics approval to participate in INS 2014? ☐ Yes ☐ No

Hospital Information

3. Hospital Name: _____
4. Hospital Type: ☐ Teaching ☐ Non-teaching

5. City: _____ 6. Province/State: _____ 7. Country: _____

8. Size of Hospital (Number of Beds): _____

ICU Information

9. Does your hospital have multiple ICUs? ☐ Yes ☐ No

10. ICU Name: _____

11. Has this ICU participated in the International Nutrition Survey in previous years? ☐ Yes ☐ No

If yes, in which year(s) did you participate? (select all that apply)

☐ 2007 ☐ 2008 ☐ 2009 ☐ 2011 ☐ 2013

12. ICU Type:

☐ Open: Attending physician remains in charge, ICU physician consults.
☐ Closed: Care transferred or shared with ICU physician
☐ Other, *Please specify:* _____

13. Case Types (select all that apply):

☐ Medical ☐ Neurological ☐ Other, *Please Specify:*
☐ Surgical ☐ Neurosurgical _____
☐ Trauma ☐ Cardiac Surgery
☐ Pediatrics ☐ Burns

14. Is there a designated ICU Medical Director? ☐ Yes ☐ No

15. Is your unit specifically a burn unit? ☐ Yes ☐ No ***If no, use the Case Report Forms for Non Burn ICUs.***

16. Number of beds in ICU: _____

17. Do you have a Dietitian working in the ICU? ☐ Yes ☐ No

If yes: Amount of full time equivalent (FTE) dietitian: _____

Site Registration 2

Dietitian coverage in ICU on Weekends	Indicate the option that best describes dietitian coverage in your ICU on weekends.
Feeding Protocol/ Algorithm	Enteral feeding protocols are defined as: tools designed to enable the bedside nurse to initiate, and/or monitor, and/or modify the administration of EN to individual patients. Implementation of such protocols includes, but is not limited to, the use of pre-printed orders that are signed by a physician when a patient is admitted to the ICU and a bedside algorithm that provides instructions to the bedside nurse on the management of EN. We are not referring to a policy document, but **bedside tools**. If your ICU uses a feeding protocol **other than the PEP uP protocol** to guide the initiation and/or progression of enteral nutrition, indicate if your protocol includes the listed components. If you are a part of the PEP uP Collaborative, choose the "Yes – PEP uP Collaborative" option and indicate which components of the PEP-uP Collaborative you are implementing at your site and which type of formula you are using as a starting formula.
Gastric Residual Volume	Indicate if your ICU monitors gastric residual volumes in enterally fed patients. If yes, indicate the threshold in mL.
Blood Sugar Protocol	Indicate whether or not you have a protocol or algorithm to monitor blood sugar control. If yes, enter the upper and lower value of your acceptable range, or alternatively, if your ICU targets one value, enter this value. Specify the units (mmol/L or mg/dL) for these values by checking the appropriate box.
Conducting Nutritional Assessments	Nutritional assessment is defined as the assessment of malnutrition (ex. weight loss, risk of malnutrition, etc) and nutrition requirements (ex. calorie requirements, protein requirements, etc). Indicate the best option for who conducts the nutritional assessments in your ICU.
Criteria for Malnutrition	Indicate all of the criteria you use to assess malnutrition.
Indicators of Inflammation	Indicate if you use laboratory indicators to monitor inflammatory status and, if yes, select all applicable indicators that you monitor.

International Nutrition Survey 2014

ICU Name: _____

Site Registration 2

18. What level of dietitian coverage is available in your ICU during weekends?

- ☐ Dietitian physically present in ICU
- ☐ Dietitian on call: comes in to ICU for consult on request
- ☐ Dietitian on call: telephone consult on request
- ☐ No dietitian available on weekends

19. Do you use a bedside feeding protocol/algorithm that allows the nurse to advance or withhold tube feedings as specified by the protocol/algorithm?

☐ Yes—We have a feeding protocol (not PEP uP) ☐ Yes—PEP uP Collaborative ☐ No

*If yes to "We have a feeding protocol" (**not** including PEP uP):*
Does your feeding protocol use an algorithm for: (check all that apply)

- ☐ Motility agents
- ☐ Small bowel feeding
- ☐ Withholding for procedures
- ☐ Head of bed elevation
- ☐ Other, *Please Specify:* _____

If yes to "PEP uP Collaborative", indicate which components you are implementing in your ICU (tick all that apply):

- ☐ A feeding strategy of volume based feeding, trophic feeds at 10 ml/hr and/or NPO
- ☐ Prophylactic use of motility agents starting day 1
- ☐ Protein supplements (24g protein/day) starting day 1

What type of formula are you using as part of your PEP uP feeding protocol (select only one)?

- ☐ Semi-elemental feeding formula
- ☐ Polymeric feeding formula
- ☐ Other type of formula , *Please Specify:* _____

20. Do you use a gastric residual volume threshold to adjust feeds? ☐ Yes ☐ No

If yes: What volume threshold do you use? _____ milliliters (ml)

21. Do you use a protocol to monitor blood sugar control or the administration of insulin?

☐ Yes ☐ No

If yes: What range do you target? Lower: _____ Upper: _____ *-OR-* What value do you target? Target: _____ *Units?* ☐ mmol/L ☐ mg/dL

22. Who conducts the nutritional assessment? Choose one option.

- ☐ Dietitian
- ☐ Nurse
- ☐ Physician
- ☐ Nutrition assessments are never completed
- ☐ Other, *please specify:* _____

23. What criteria are used for assessing malnutrition? Check all that apply.

- ☐ Weight loss
- ☐ Underweight status or low BMI
- ☐ Anthropometric assessment of skin-folds or circumferences
- ☐ Compromised dietary intake
- ☐ Low albumin or prealbumin
- ☐ Not applicable
- ☐ Other, *please specify:* _____

24. Do you monitor any laboratory indicators of inflammatory status in the ICU?

☐ Yes ☐ No

If yes, choose all that apply: ☐ C-reactive protein ☐ Other, *please specify:* _____

Filled out once for each ICU.

Site Registration 3

This Case Report Form is specific to burn units only and is to be completed once for each unit.

Admissions	Indicate the **average** number of admissions to your burn unit **each year.**
Feeding practices	Indicate **all** feeding practices used in your burn unit for patients undergoing burn related surgeries and/or grafting.

International Nutrition Survey 2014

ICU Name: [ ]

Site Registration 3

25. What is the average number of admissions to your burn unit each year? _____

26. What feeding practice are used in your unit to minimize the interruptions around burn related surgeries and/ or grafting? (Select all that apply)
    - ☐ No interruptions: feed patient through the OR and entire perioperative period (no interruptions for surgery)
    - ☐ Feed right up until the patient is transferred to the OR
    - ☐ Withhold feeds some hours before the OR
    - ☐ Withhold feeds at midnight the night before the OR
    - ☐ Other, please specify: _____

Filled out once for each ICU.

Screening

1. You will enroll consecutive patients in the study. **Consecutive** means the very next patient that meets the criteria, instead of picking and choosing patients. Beginning on the first day of data collection, record **all** patients physically located in your ICU on or after that day in your screening log. All data can be collected retrospectively except for Head of the Bed Elevation. You can stop recording patients once you have enrolled at least 20 patients who meet all inclusion criteria.

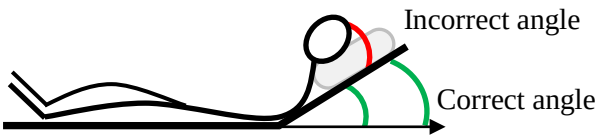
   ***Note**:* Study Day 1 is the date of ICU admission, regardless of when the patient is screened. *Example:* if you screen a patient on September 17th, and they were admitted to ICU on September 2nd, you need to collect data from September 2nd until September 13th.

   Note: If charts are missing and you are unable to collect the relevant data for this patient, please exclude this patient and include the next eligible patient.

2. Screening log columns represent eligibility criteria for purposes of data collection. Place a ✓ in each column where a patient meets the eligibility criteria, or an ✗ if the patient does not meet that criteria. You will not know if a patient is eligible until 72 hours after ICU admission (exclude patients that are discharged from the ICU within 72 hours). Collect data on all patients who meet all eligibility criteria. If the number of patients meeting inclusion criteria is <20, continue to screen daily until you have at least 20 consecutive patients.

3. If a patient has had several admissions to the ICU, use the **most recent** admission.
   a. If a patient you collected data on is later readmitted to the ICU, do not include them a 2nd time.
   b. If a patient you are collecting data on is discharged but readmitted within 48 hours consider it as if this patient never left the ICU. Collect data for the hours they were not in the ICU, and continue collecting data on them once they return to the ICU.

4. Record the head of the bed elevation, in degrees, at the time the patient is identified as meeting all inclusions criteria. This should be observed at the time of screening (i.e. when patient is first included in survey). If head of bed elevation is not observed, please simply note it as "missing." For determining head of bed elevation, use the device that the ICU bed is equipped with. If no such device is available, you will need to estimate the angle, and we suggest that you do this with another team member (i.e. RN, RT, etc). When you are estimating, please note if the patient has pillows under his/her head. If there are pillows make sure that you record the angle at which the patient's trunk meets the bed instead of the angle between the head and the pillow.



5. Record the REDCap patient number on the screening log.

   Important: The patient number and screening number will **not** be the same. The patient number is automatically generated by REDCap. REDCap patient numbers will not be consecutive (e.g. 1 to 20). They will begin with your site ID number, followed by a unique patient number (e.g. 15-9 means you are site 15, and this is patient 9).

6. Please keep the screening log to help track down which patient corresponds to which patient number in case we have data queries at a later date, or if your site is selected for source verification. Use additional pages of the screening log as necessary. Use the Screening Log to complete the Site Finalization form (see page 34). There is no eCRF in REDCap for the Screening Log.

Enroll all patients meeting the following inclusion criteria:

1) Patient ≥18 years old (or ≥16 years old if approved locally at your site)
2) Mechanically ventilated within 48 hours of admission to the ICU. (Duration of mechanical ventilation does not matter. Patients already mechanically ventilated when admitted to ICU are eligible.)
3) In the ICU for ≥72 hours from ICU admission. *Please interpret this as patients that needed artificial nutrition for at least 72 hrs from admission. Patients that stayed in the ICU for at least 72 hrs but did not need artificial nutrition for at least 72 hours are not sick enough and therefore should not be enrolled.*

International Nutrition Survey 2014

ICU Name:

Screening Log

This log is for your own reference and will not be entered online. However, you will be asked to provide the total number of patients from the third, fourth and fifth column of your screening log to complete the Site Finalization form. Please use additional copies of this page as necessary.

Screening number *(for your reference only)*	Patient initials for all patients in the ICU on/ after first day of data collection	#1. **Patient is ≥18 years old (or ≥ 16, if applicable)**	#2. Patient meets criteria #1 and is **intubated and ventilated within the first 48 hours of admission to ICU** *(exclude mask ventilation)*	#3. Patient meets criteria #1 and #2 and **remained in ICU for ≥72 hours**	Patient eligible?	Head of the bed angle	REDCap Patient number *(automatically assigned in REDCap if patient included in survey)*
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
TOTAL							

International Nutrition Survey 2014

ICU Name:

Screening Log

This log is for your own reference and will not be entered online. However, you will be asked to provide the total number of patients from the third, fourth and fifth column of your screening log to complete the Site Finalization form. Please use additional copies of this page as necessary.

Screening number *(for your reference only)*	Patient initials for all patients in the ICU on/ after first day of data collection	#1. **Patient is ≥18 years old (or ≥ 16, if applicable)**	#2. Patient meets criteria #1 and is **intubated and ventilated within the first 48 hours of admission to ICU** *(exclude mask ventilation)*	#3. Patient meets criteria #1 and #2 and **remained in ICU for ≥72 hours**	Patient eligible?	Head of the bed angle	REDCap Patient number *(automatically assigned in REDCap if patient included in survey)*
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
41							
42							
43							
44							
45							
46							
47							
48							
49							
50							
TOTAL							

International Nutrition Survey 2014

ICU Name:

Screening Log

This log is for your own reference and will not be entered online. However, you will be asked to provide the total number of patients from the third, fourth and fifth column of your screening log to complete the Site Finalization form. Please use additional copies of this page as necessary.

Screening number *(for your reference only)*	Patient initials for all patients in the ICU on/ after first day of data collection	#1. **Patient is ≥18 years old (or ≥ 16, if applicable)**	#2. Patient meets criteria #1 and is **intubated and ventilated within the first 48 hours of admission to ICU** *(exclude mask ventilation)*	#3. Patient meets criteria #1 and #2 and **remained in ICU for ≥72 hours**	Patient eligible?	Head of the bed angle	REDCap Patient number *(automatically assigned in REDCap if patient included in survey)*
51							
52							
53							
54							
55							
56							
57							
58							
59							
60							
61							
62							
63							
64							
65							
66							
67							
68							
69							
70							
71							
72							
73							
74							
75							
TOTAL							

Patient Information 1

Sex	Place a ✓ in the appropriate box (male or female)
Age	Record patient's age at the time of screening
Inclusion Criteria	Indicate if the patient meets the 3 inclusion criteria before proceeding further with data collection. If the patient **does not meet all 3** criteria, they are **not** eligible for the survey. **This means you must find another patient that meets the inclusion criteria.**
Hospital Admission Date/Time	Enter the date and time the patient was admitted to the hospital. This is the time of initial presentation to the emergency department or hospital ward, whichever is the earliest. For patients transferred from another institution directly to the ICU, the ICU admission date/time is to be used for the hospital admission date/time.
ICU Admission Date/Time	Enter the date and time the patient was admitted to the ICU in your hospital. If the patient has been admitted to your ICU multiple times, use the **most recent** admission. If a patient is transferred from another ICU enter the date of admission to **your** ICU**.** If the patient is admitted directly to your ICU, the ICU and hospital admission dates and times will be the same.
Mechanical Ventilation Date/Time	Enter the date and time mechanical ventilation was started. This refers to invasive mechanical ventilation i.e. intubation with mechanical ventilation or tracheostomy with mechanical ventilation. This includes any positive pressure delivered via an endotracheal tube or a tracheostomy. This does not refer to non-invasive methods of ventilation such as BI-PAP or mask-CPAP. For the patient that is mechanically ventilated prior to admission to your hospital, check the box "Started prior to ICU admission".
Type of Admission	Place a ✓ in only **one** of the following categories: **Medical:** defined as a patient admitted to the ICU for treatment without any surgical intervention (includes patients admitted from a cardiology/radiology intervention suite and burn patients) **Surgical Elective:** defined as a patient admitted to the ICU from the operating room directly or a recovery unit following a planned surgical procedure **Surgical Emergency:** defined as a patient admitted to the ICU from the operating room directly or a recovery unit following an unplanned surgical procedure. *Note:* If a surgical patient develops a medical complication and is transferred to the ICU from the ward, this would be a "medical" admission type.
Primary ICU Diagnosis	Choose the most pertinent diagnosis from the taxonomy provided that **resulted in the patient's admission to ICU**. Only **one** diagnosis can be chosen. Remember, symptoms are not an admission diagnosis (e.g. respiratory distress, hypotension, etc). Example: A patient was admitted to hospital for an elective cholecysectomy. Post-operatively the patient experiences a cardiac arrest on the ward and was subsequently admitted to the ICU. This patient would be classified as *medical* admission type, and *cardiac arrest* as primary ICU diagnosis. If the admission diagnosis is not present in the taxonomy, under the correct admission type (Medical, Surgical Elective or Surgical Emergency) select "other" under the appropriate body system (Respiratory, Neurologic, etc) and specify the admission diagnosis. *Note:* We are specifically interested in reporting on patients with **sepsis, pancreatitis, bariatric surgery, ARDS, and burns.** If a suitable diagnosis for a patient includes one of these conditions, select this condition in preference to other diagnoses. Example: If a patient is admitted with sepsis and pneumonia, select sepsis.

International Nutrition Survey 2014

Patient Number: ☐

Patient Information 1

ICU Name: ☐

Sex: ☐ Male ☐ Female Age: _____

Does patient meet the inclusion criteria? **If no, do not proceed with data collection; patient is excluded from INS 2014.**

- ☐ Patient ≥18 years old (or ≥16, if approved locally at you site)
- ☐ Mechanically ventilated within 48 hours of admission to the ICU (duration does not matter)
- ☐ In the ICU for ≥72 hours from ICU admission

Hospital Admission Date (YYYY-MM-DD): _____ Time (HH:MM, 24h): _____

ICU Admission Date (YYYY-MM-DD): _____ Time (HH:MM, 24h): _____

Mechanical ventilation:

- ☐ Started prior to ICU admission
- ☐ Started in ICU: Date (YYYY-MM-DD): _____ Time (HH:MM, 24h): _____

Type of Admission: ☐ Medical ☐ Surgical Elective ☐ Surgical Emergency

Primary ICU Diagnosis: *(Select **one** item from the taxonomy)*

Medical

Cardiovascular/Vascular
- ☐ Acute myocardial infarction
- ☐ Aortic aneurysm
- ☐ Cardiac arrest
- ☐ Cardiogenic shock
- ☐ Congestive heart failure
- ☐ Hypertension
- ☐ Peripheral vascular disease
- ☐ Rhythm disturbance
- ☐ Other CV disease (specify)

Respiratory
- ☐ Aspiration pneumonia
- ☐ Asthma
- ☐ Bacterial / Viral pneumonia
- ☐ Chronic obstructive pulmonary disease
- ☐ Mechanical airway obstruction
- ☐ Parasitic pneumonia (ie.pneumocystis carinii)
- ☐ Pulmonary edema (non-cardiogenic)
- ☐ Pulmonary embolism
- ☐ Respiratory arrest
- ☐ Respiratory neoplasm (include larynx and trachea)
- ☐ Other respiratory disease (specify)

Gastrointestinal
- ☐ GI bleeding due to diverticulosis
- ☐ GI bleeding due to ulcer/laceration
- ☐ GI bleeding due to varices
- ☐ GI inflammatory disease (ulcerative colitis, crohn's disease)
- ☐ GI perforation/obstruction
- ☐ Hepatic failure
- ☐ Pancreatitis
- ☐ Other GI disease (specify)

Neurologic
- ☐ Intracerebral hemorrhage
- ☐ Neurologic infection
- ☐ Neurologic neoplasm
- ☐ Neuromuscular disease
- ☐ Seizure
- ☐ Stroke
- ☐ Subarachnoid hemorrhage
- ☐ Other neurologic disease (specify)

Sepsis
- ☐ Sepsis (other than urinary tract)
- ☐ Sepsis of urinary tract origin

Trauma
- ☐ Head trauma (with/without multiple trauma)
- ☐ Multiple trauma (excluding head trauma)

Metabolic
- ☐ Diabetic ketoacidosis
- ☐ Drug overdose
- ☐ Metabolic coma
- ☐ Other metabolic disease (specify)

Hematologic
- ☐ Coagulopathy / neutropeniathrombocyto-penia
- ☐ Other hematologic condition (specify)

Burns
- ☐ Burns

Other
- ☐ Renal disease (specify)
- ☐ Other medical disease (specify)

If you selected "other" in any of the above categories, specify here: _____

Surgical (elective or emergency)

Vascular/Cardiovascular
- ☐ CABG only
- ☐ Carotid endarterectomy
- ☐ Dissecting/ruptured aorta
- ☐ Elective abdominal aneurysm repair
- ☐ Peripheral artery bypass graft
- ☐ Peripheral vascular surgery (no bypass graft)
- ☐ Valvular heart surgery/CABG
- ☐ Valvular heart surgery only
- ☐ Other CV disease (specify)

Respiratory
- ☐ Lung neoplasm
- ☐ Respiratory infection
- ☐ Respiratory neoplasm (mouth, sinus, larynx, trachea)
- ☐ Other respiratory disease (specify)

Gastrointestinal
- ☐ GI bleeding
- ☐ GI cholecystitis / cholangitis
- ☐ GI inflammatory disease
- ☐ GI neoplasm
- ☐ GI obstruction
- ☐ GI perforation/rupture
- ☐ Liver transplant
- ☐ Pancreatitis
- ☐ Other GI disease (specify)

Neurologic
- ☐ Craniotomy for neoplasm
- ☐ Intracerebral hemorrhage
- ☐ Laminectomy/other spinal cord surgery
- ☐ Subarachnoid hemorrhage
- ☐ Subdural/epidural hematoma
- ☐ Other neurologic disease (specify)

Trauma
- ☐ Head trauma (with/without multiple trauma)
- ☐ Multiple trauma (excluding head trauma)

Renal
- ☐ Renal neoplasm
- ☐ Other renal disease (specify)

Gynecologic
- ☐ Hysterectomy

Orthopedic
- ☐ Hip or extremity fracture

Bariatric Surgery
- ☐ Laparoscopic Banding
- ☐ Laparoscopic Gastric Bypass
- ☐ Open Gastric Bypass (Roux-en-Y)
- ☐ Vertical Banded Gastroplasty

Other
- ☐ Other surgical disease (specify)

If you selected "other" in any of the above categories, specify here: _____

Patient Information 2

Co-morbidities	Place a ✓ beside all co-morbidities present using the taxonomy provided. Only those co-morbidities found on the taxonomy listing should be recorded. Example: A patient's primary ICU diagnosis is cardiac arrest, and the patient is asthmatic, has type II diabetes, is obese, and is hearing impaired. Under co-morbidities, select: - Pulmonary: Asthma - Endocrine: Diabetes Type I or II - Endocrine: Obesity and/or BMI >30 - Miscellaneous: Hearing Impairment ***Note*:** The definitions of *alcohol use: heavy or binge drinking* are below: • Women: >7 drinks/week or >3 drinks/occasion • Men: >14 drinks/week or >4 drinks/occasion
Highest/Lowest Blood Sugar in 1st 24 hours	Indicate if blood sugar was recorded within the first 24 hours of admission to the ICU. This can be either serum or capillary. If yes, please record the highest and lowest values. Indicate what units you are reporting the values in (mmol/L or mg/dL). If only one blood sugar was recorded in the first 24 hours, enter the same value for the highest and lowest blood sugar. *Note*: once you specify units here on the Patient Information Form on REDCap, these units will be assumed to be the same for **all other blood glucose fields for this patient**.
Presence of ARDS	ARDS is an acute lung condition characterized by PaO_2:FiO_2 <200mmHg in the presence of bilateral alveolar infiltrates on chest x-ray. You are not expected to diagnose ARDS. You only need to review the chart for the first 72 hours from admission to the ICU for either a confirmed or suspected diagnosis of ARDS. If the chart says "? ARDS", this is suspected ARDS, and you should select "Yes".
Head of Bed Elevation	Copy the value on the Screening Log for head of the bed elevation at time of screening or refer to the instructions on the Screening Log for how to measure the value. If head of bed elevation is not observed, please simply note it as "missing."
APACHE II Score	If routinely calculated, directly enter the score recorded in the patient's chart. To calculate the score, you may use any tool you wish. We recommend the worksheet on our website (http://criticalcarenutrition.com/docs/ccn_resources/APACHE_ranges.pdf) and in Appendix E of this manual or you may go to the following website: http://www.sfar.org/scores2/apache22.html#haut. Record the calculated score. *Remember:* • For each APACHE variable, use **the single worst value** out of all values from the **first 24 hours** of this ICU admission. If variables are not available from the first 24 hours, use data closest to ICU admission except for GCS score, in which the highest score should be used (ie. the score for when the patient is most oriented – see our website worksheet). • Ensure the units that you are using for serum sodium, potassium and white blood count correspond with the units designated in the tool you are using. • For temperature, rectal is the same as oral, temporal, tympanic and bladder temperatures. If the patient is on a hypothermia protocol (cooling), please use the patient's temperature before cooling was initiated.

International Nutrition Survey 2014

Patient Number: ☐

Patient Information 2

ICU Name: ☐

Co-morbidities: ☐ Yes ☐ No

If yes, check all that apply:

Myocardial
- ☐ Angina
- ☐ Arrhythmia
- ☐ Congestive heart failure (or heart disease)
- ☐ Myocardial infarction
- ☐ Valvular

Vascular
- ☐ Cerebrovascular disease (Stroke or TIA)
- ☐ Hypertension
- ☐ Peripheral vascular disease or claudication

Pulmonary
- ☐ Asthma
- ☐ Chronic obstructive pulmonary disease (COPD, emphysema)

Neurologic
- ☐ Dementia
- ☐ Hemiplegia (paraplegia)
- ☐ Neurologic illnesses (such as Multiple sclerosis or Parkinsons)

Endocrine
- ☐ Diabetes Type I or II
- ☐ Diabetes with end organ damage
- ☐ Obesity and/or BMI > 30 (weight in kg/(ht in meters)^2)

Renal
- ☐ Moderate or severe renal disease

Gastrointestinal
- ☐ Gastrointestinal Disease (hernia or reflux)
- ☐ GI Bleeding
- ☐ Inflammatory bowel
- ☐ Mild liver disease
- ☐ Moderate or severe liver disease
- ☐ Peptic ulcer disease

Cancer/Immune
- ☐ AIDS
- ☐ Any Tumor
- ☐ Leukemia
- ☐ Lymphoma
- ☐ Metastatic solid tumor

Psychological
- ☐ Anxiety or Panic Disorders
- ☐ Depression

Muskoskeletal
- ☐ Arthritis (Rheumatoid or Osteoarthritis)
- ☐ Connective Tissue disease
- ☐ Degenerative Disc disease (back disease or spinal stenosis or severe chronic back pain)
- ☐ Osteoporosis

Substance Use
- ☐ Heavy alcohol use or binge drinking history
- ☐ Current smoker
- ☐ Drug abuse history

Miscellaneous
- ☐ Hearing Impairment (very hard of hearing even with hearing aids)
- ☐ Visual Impairment (cataracts, glaucoma, macular degeneration)

In your ICU, what units do you use to measure blood glucose?

☐ mmol/L ☐ mg/dL

Note: once you specify units here on the Patient Information Form on REDCap, these units will be assumed to be the same for **all other blood glucose fields for this patient**.

Was the patient's blood sugar recorded in the 1st 24 hours after admission? ☐ Yes ☐ No

If yes,

Highest blood glucose in 1st 24 hours: _____

Lowest blood glucose in 1st 24 hours: _____

Was ARDS present? ☐ Yes ☐ No

Was Head of Bed Elevation recorded? ☐ Yes (Actual) ☐ Yes (Estimated) ☐ Not available or not observed

If yes,

- ☐ Patient laying flat (0°)
- ☐ Patient sitting up (90°)
- ☐ Other angle: (specify) _____

APACHE II Score: _____

Patient Information 3

This Case Report Form is specific to burn units only and is to be completed once for each burns patient.

<table>
<tr><td>%TBSA</td><td>Indicate the total burn surface area as a percent.</td></tr>
<tr><td>% 2nd degree burn</td><td>Indicate the percent of second degree burns.</td></tr>
<tr><td>% 3rd degree burn</td><td>Indicate the percent of third degree burns.</td></tr>
<tr><td>Date of burn injury</td><td>Indicate the date when the patient suffered from the burn injury for which they were admitted to your unit.</td></tr>
<tr><td>Type of burn</td><td>Indicate the type of burn and select all that apply. If other, please specify.</td></tr>
<tr><td>Full thickness burn</td><td>Indicate if there is presence of full thickness burn.</td></tr>
<tr><td>Inhalation injury</td><td>Indicate if the patient has an inhalation injury.

If yes, complete the Inhalation Injury Severity Score. The coding and grading by bronchoscopy for the Inhalation Injury Severity Score is:
<table>
<tr><th>AIS code</th><th>Grade</th><th>Class</th><th>Description</th></tr>
<tr><td>919201.2</td><td>0</td><td>No injury</td><td>Absence of carbonaceous deposits, erythema, edema, bronchorrhea or obstruction</td></tr>
<tr><td>919202.3</td><td>1</td><td>Mild injury</td><td>Minor or patchy areas of erythema, carbonaceous deposits in proximal or distal bronchi</td></tr>
<tr><td>919204.4</td><td>2</td><td>Moderate injury</td><td>Moderate degree erythema, carbonaceous deposits, bronchorrhea or bronchial obstruction</td></tr>
<tr><td>919206.5</td><td>3</td><td>Severe injury</td><td>Severe inflammation with friability, copious carbonaceous deposits, bronchorrhea or obstruction</td></tr>
<tr><td>919208.6</td><td>4</td><td>Massive injury</td><td>Evidence of mucosal sloughing, necrosis, endoluminal obliteration</td></tr>
</table></td></tr>
</table>

International Nutrition Survey 2014

Patient Number: ☐

ICU Name: ☐

Patient Information 3

Indicate the following burn injury details:

1) % total burn surface area (TBSA): _____
2) % 2nd degree burns:_____
3) % 3rd degree burns:_____
4) Date of burn injury: | 2 | 0 | Y | Y | M | M | D | D |
5) Type of burn: ☐ Scald ☐ Chemical ☐ Unknown ☐ Fire ☐ Radiation ☐ Other, specify: _____

6) Is there presence of full thickness burn? ☐ Yes ☐ No
7) Is inhalation injury present? ☐ Yes ☐ No

If yes, please indicate the Inhalation Injury Severity Score: ☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4

Baseline SOFA Score

SOFA (sequential organ failure assessment) score is used to determine organ dysfunction/failure in the ICU. To calculate, there are variables that **must** be collected at baseline. **These variables must be from the first 24hrs after patient's ICU admission and not according to study day**. If the particular variable is missing for the day, choose the range that includes 'N/A'.

Lowest PaO_2/FiO_2 Ratio (also known as P/F ratio)	This is an indication of the patient's respiratory status; a lower ratio indicates a worse status. The PaO_2 and FiO_2 values are from arterial blood gases and can be obtained from nursing/respiratory flowsheets. You will need to determine the **lowest P/F** ratio in the study day regardless of whether the patient is ventilated or not. Some patients may have many PaO_2 and FiO_2 values available daily and we have provided a table and instructions (see Appendix F) to help you find the lowest ratio. If this data is not available in the first 24 hours of ICU stay, you may extend data collection for the variable to a maximum of 48 hours.
Lowest Platelets	This is an indication of the coagulation status of the patient and the lower the value, the worse the status. Find the lowest platelets in units $x10^3/mm^3$ and pick the corresponding range for this value.
Highest Total Bilirubin	This is an indication of liver function and the higher the value, the worse the status. Find the highest total bilirubin in the day and pick the range that corresponds to this value. Ensure that you are choosing the ranges with the correct units (i.e. mg/dL or micromoles/L).
Vasopressors	These are drugs for hypotension and the higher the dose needed to maintain a normal blood pressure, the worse the hypotension. Some patients may not be on vasopressors and instead a mean arterial pressure (MAP) is needed. a) If the patient received vasopressors today (defined as Dobutamine, Dopamine, Epinephrine/Adrenaline or Norepinephrine/Adrenaline) find the **highest** hourly dose received today and pick the corresponding range. b) If the patient did not receive vasopressors today, find the lowest MAP. If this is not on the RN flowsheet, you can calculate this using the formula: **MAP = 1/3 lowest systolic BP + 2/3 corresponding diastolic BP** Or use the tool on the website: http://www.mdcalc.com/mean-arterial-pressure-map/
Conscious State	Choose the option from each of the 3 categories (eye opening, verbal response, best motor response that gives the **highest score for the first 24 hr period after patient's ICU admission** If the patient is sedated, go back to the period when the patient was not sedated or approximate what the score would be if sedation was removed. Enter the scores under the 3 separate categories.
Highest Creatinine	This is an indication of renal status. The higher the creatinine the worst the renal function. Find the **highest** creatinine in the study day and pick the corresponding ranges. Ensure you use the correct units.
Total Urine Output	This is an indication of renal status. The lower the urine output, the worst the renal function. Find the **total** urine output for the patient's first 24 hours in ICU and pick the corresponding ranges. Ex. If patient is admitted at 18:00 on September 20th, calculate the total urine output from 18:00 on September 20th until 18:00 on September 21st. Note: If there is missing urine output data in the first 24-hour period, you may extrapolate the data you have to give an estimate total urine output for the first 24 hours. Ex. If patient is admitted at 18:00 and has total urine output of 400 ml for the 6 hour period from 18:00-23:59, total urine output can be calculated as 400 ml x 4 = 1600 ml to estimate the 24 hour period.

International Nutrition Survey 2014

Patient Number: ☐

ICU Name: ☐

Baseline SOFA Score

1. Lowest PaO2/FiO2 Ratio (also known as P/F ratio):
   - ☐ ≥ 400 mmHg or N/A
   - ☐ 300 - 399 mmHg
   - ☐ 200 - 299 mmHg
   - ☐ 100 - 199 mmHg with respiratory support
   - ☐ < 100 mmHg with respiratory support

2. Lowest Platelets:
   - ☐ ≥ 150 $x10^3/mm^3$ or N/A
   - ☐ 100 - 149 $x10^3/mm^3$
   - ☐ 50 - 99 $x10^3/mm^3$
   - ☐ 20 - 49 $x10^3/mm^3$
   - ☐ < 20 $x10^3/mm^3$

3. Highest Bilirubin (total):
   - ☐ < 1.2 mg/dL (< 20 µmol/L) or N/A
   - ☐ 1.2 - 1.9 mg/dL (20 - 32 µmol/L)
   - ☐ 2.0 - 5.9 mg/dL (33 - 101 µmol/L)
   - ☐ 6.0 - 11.9 mg/dL (102 - 204 µmol/L)
   - ☐ ≥ 12.0 mg/dL (> 204 µmol/L)

4. Did the patient receive vasopressors today?

   If yes,
   - ☐ Dopamine ≤ 5 µg/kg/min or Dobutamine (any dose)
   - ☐ Dopamine >5 - 15 µg/kg/min or Epinephrine ≤ 0.1 µg/kg/min or Norepinephrine ≤ 0.1 µg/kg/min
   - ☐ Dopamine > 15 µg/kg/min or Epinephrine > 0.1 µg/kg/min or Norepinephrine > 0.1 µg/kg/min

   If no, mean arterial pressure (MAP):
   - ☐ < 70 mmHg
   - ☐ ≥ 70 mmHg

5. What is the patient's conscious state? (Choose option that gives the highest score)

Eye Opening
- ☐ 1- None
- ☐ 2- To Pain
- ☐ 3- To speech
- ☐ 4-Spontanous

Verbal Response
- ☐ 1- None
- ☐ 2- Incomprehensible words
- ☐ 3- Inappropriate words
- ☐ 4- Confused
- ☐ 5- Oriented

Best Motor Response
- ☐ 1- None
- ☐ 2- Extension
- ☐ 3- Abnormal flexion
- ☐ 4- Withdraws from pain
- ☐ 5- Localizes to pain
- ☐ 6- Obeys commands

6. a) Highest Creatinine:
   - ☐ < 1.2 mg/dL (< 110 µmol/L) or N/A
   - ☐ 1.2 - 1.9 mg/dL (110 - 170 µmol/L)
   - ☐ 2.0 - 3.4 mg/dL (171 - 299 µmol/L)
   - ☐ 3.5 - 4.9 mg/dL (300 - 440 µmol/L)

   b) Total urine output:
   - ☐ ≥ 500 mL/day or N/A
   - ☐ 200 - 499 mL/day
   - ☐ < 200 mL/day

Filled out once for each patient.

Baseline Nutrition Assessment 1

Height	Record height in **metres**. If unable to obtain "actual" value, use estimated height or height obtained from family members and check the box indicating the data was estimated. See Appendix A or the "Resources" tab on REDCap for a units conversion tool, if required.
Dry Body Weight	Record patient's weight based on pre-ICU actual weight or an estimated dry weight in **kilograms.** Select if the weight is: • Actual (ie. pre-ICU actual weight obtained from chart) • Estimated (ie. pre-ICU estimated dry weight, weight obtained from family members) Do not enter the weight used to estimate the patients nutritional requirements if it differs from the above. See Appendix B or the "Resources" tab on REDCap for a unit conversion tool, if required.
Usual weight	Record patient's usual weight in **kilograms**. This may or may not be the same as the patient's dry body weight. Attempt to get this from a family member. Leave this field blank if the data is not available.
BMI	Calculate patient's BMI (kg/m^2) using the patient's dry body weight. When entering data into REDCap, this value will be calculated for you once height and dry weight are entered.
Was a nutrition assessment completed?	Nutritional assessment is defined as the assessment of malnutrition (ex. weight loss, risk of malnutrition, etc) and nutrition requirements (ex. calorie requirements, protein requirements, etc). *If* yes, enter the date and time of the assessment, the weight used in calculation of goal calorie and protein requirements, the methods used to calculate calorie requirements and indicate the calculated requirements. The nutrition assessment does not need to have been calculated on Study Day 1 and can be entered once available. If no assessment was completed during the patient's ICU stay, the goal nutrition requirements will automatically be calculated as 25kcal/kg and 1g/kg for protein (using dry body weight for individuals with normal BMIs, ideal body weight for underweight individuals and adjusted body weight for obese individuals), and you may proceed to the question on EN/PN initiation date/time.
Weight used to determine goal kcal	Choose from the list, or if weight used is not listed, select "other" and specify.
Weight used to determine goal protein	Choose from the list, or if weight used is not listed, select "other" and specify.
Calculation of goal calorie requirements	Select all that apply from the list
Goal calorie requirements	Enter the total kilocalories provided by the **goal feeding regimen** according to the dietitians' or physicians' recommendation. If the patient is or will be fed enterally and/or parenterally, enter the calories provided by the maximum goal rate/volume determined at the initial assessment for EN and/or PN according to the dietitians' or physicians' recommendation. • Include kilocalories from protein and protein supplements. • If the patient is receiving propofol, enter the calories the patient requires if they were **not** on propofol • If the requirement is a range, indicate the **midpoint** of the range. If nutrition support is initiated below the calculated goal rate, do **not** enter the starting rate of nutrition support as the goal calorie requirements even if you are concerned about

	refeeding. Instead, enter the calories that would be provided by the goal rate that would meet the full caloric needs of the patient. Eg. For an 80 kg male (Mr.X), the dietitian calculates the patient requires 2000 kcal/day (25 kcal/kg) and 80 g protein/day (1.0 g/kg). The patient will be fed enterally, starting at 25 ml/hr and advancing to a goal rate of 70 ml/hr of continuous feeds. The feeds at 70 ml/hr x24 hours/day would provide 2016 kcal and 91 grams protein per day. The goal calorie requirements would be entered as 2016 kcal.
Goal protein requirements	Enter the grams provided by the **goal feeding regimen** according to the dietitians' or physicians' recommendation. If the patient is or will be fed enterally and/or parenterally, enter the grams provided by the maximum goal rate/volume determined at the initial assessment for EN and/or PN according to the dietitians' or physicians' recommendation. • If the requirements are a range, indicate the midpoint of the range. • Include grams from protein supplements. If nutrition support is initiated below the calculated goal rate, do **not** enter the starting rate of nutrition as the goal protein requirement intake even if you are concerned about re-feeding. Instead, enter the grams of protein provided by the goal rate that would meet the full protein needs of the patient. Eg. In the example above for Mr.X, the goal protein requirements would be entered as 91 g.

International Nutrition Survey 2014

Baseline Nutrition Assessment 1

Patient Number: ☐

ICU Name: ☐

Height (metres): _____ ☐ Actual ☐ Estimated

Dry Body Weight (kg): _____ ☐ Actual ☐ Estimated

Usual Weight (kg): _____

BMI = _____ kg/m^2

Was a nutrition assessment completed?

☐ Yes ☐ No

If yes:

Date of nutrition assessment: _____ Time: _____

Weight used in calculation of goal **calorie** requirements:

- ☐ Actual dry body weight
- ☐ Adjusted average [0.5(ABW + IBW)]
- ☐ Adjusted by 25% [0.25(ABW-IBW) + IBW]
- ☐ Adjusted by 40% [0.40(ABW-IBW) + IBW]
- ☐ Estimated dry body weight
- ☐ Ideal (IBW) based on Hamwi formula
- ☐ Ideal (IBW) based on BMI 20-25 kg/m^2
- ☐ Based on BMI: BMI range: _____ to _____
- ☐ No weight used in calculation
- ☐ Usual (UBW)
- ☐ Other (specify): _____

Weight used in calculation of goal **protein** requirements:

- ☐ Actual dry body weight
- ☐ Adjusted average [0.5(ABW + IBW)]
- ☐ Adjusted by 25% [0.25(ABW-IBW) + IBW]
- ☐ Adjusted by 40% [0.40(ABW-IBW) + IBW]
- ☐ Estimated dry body weight
- ☐ Ideal (IBW) based on Hamwi formula
- ☐ Ideal (IBW) based on BMI 20-25 kg/m^2
- ☐ Based on BMI: BMI range: _____ to _____
- ☐ No weight used in calculation
- ☐ Usual (UBW)
- ☐ Other (specify): _____

Method(s) used to calculate goal calorie requirements for this patient (select all that apply):

- ☐ Harris Benedict Equation with no adjustment for stress and/or activity
- ☐ Harris Benedict Equation with adjustment for stress and/or activity
- ☐ Schofield Equations with no adjustment for stress and/or activity
- ☐ Schofield Equation with adjustment for stress and/or activity
- ☐ Mifflin-St. Jeor Equation with no adjustment for stress and/or activity
- ☐ Mifflin-St. Jeor Equation with adjustment for stress and/or activity
- ☐ Ireton-Jones Equation with no adjustment for stress and/or activity
- ☐ Ireton-Jones Equation with adjustment for stress and/or activity
- ☐ Penn State Equation with no adjustment for stress and/or activity
- ☐ Penn State Equation with adjustment for stress and/or activity
- ☐ Modified Penn State Equation with no adjustment for stress and/or activity
- ☐ Modified Penn State Equation with adjustment for stress and/or activity
- ☐ Toronto Equation with no adjustment for stress and/or activity
- ☐ Toronto Equation with adjustment for stress and/or activity
- ☐ Weight based: _____kcal/kg to _____kcal/kg
- ☐ Provide 1200-1499 kcal as standard
- ☐ Provide 1500-2000 kcal as standard
- ☐ Indirect calorimetry
- ☐ Other (specify): _____

Goal Calorie Requirement: (kcal/day) _____ Goal Protein Requirement: (g/day) _____

Baseline Nutrition Assessment 2

Unintentional weight loss in the last 3 months	The weight loss timeframe is in the **3 months before ICU admission**. *If yes*, record how much weight the patient lost in the **3 months before ICU admission.**
Food intake and appetite in the past week	The timeframe for decreased food intake due to poor appetite is the **week before ICU admission**. *If yes*, record how much less (a percent or fraction) the patient consumed in the **week before ICU admission** compared to usual.
EN Initiation Date/Time	Enter the date/time EN was initiated in the ICU, or indicate "EN initiated prior to ICU admission" or "EN not initiated during first 12 days in ICU"
PN Initiation Date/Time	Enter the date/time PN was initiated in the ICU or indicate "PN initiated prior to ICU admission" or "PN not initiated during first 12 days in ICU"
Reason PN initiated	If PN was initiated in the ICU or prior to ICU admission, choose the reason from the list, or if the reason is not listed, select "other" and specify.
Nutrition delivery technique recommended by physician or dietitian at initial order	Choose one option from the list which best describes the delivery technique recommended by the physician or dietitian at the initial order of nutrition. *Definitions:* ***Initiate EN: start at low rate and progress to hourly goal rate*** *Eg. Start at 25 ml/hr and increase to 50 ml/hr then 75 ml/hr (hourly goal rate)* ***Initiate EN: start at OR progress to 24 hr Volume Goal Based hourly rate*** *Hourly rate is determined by 24hr volume goal. This includes the following scenarios:* ▪ *Starting at lower rate on Day 1 and progressing to 24 hr volume based hourly rate. Eg. 24 hr volume goal = 1800 mls (75 ml/hr) and feeds start at 25 ml/hr Day 1 and then progress to full goal volume OR* ▪ *Starting at full rate on Day 1 as determined by the 24 hr volume. Eg. 24 hr volume goal = 1800 ml (75ml/hr) and feeds start at 75 ml/hr* ***Initiate EN: start at hourly goal rate*** *Eg. Pt requires 75 ml/hr and feeding starts at 75 ml/hr* ***Initiate EN: keep at low rate (trophic feed: no progression)*** *Eg. Start at 10 ml/hr and leave as is* • *If trophic feeds, pick one of the reasons why this was recommended from the list. If other, specify.* ***Initiate EN: bolus feeds*** *Eg. Pt requires 75 ml/hr and starts with boluses of 450 ml q 6 hours.* Select "oral nutrition" or "PN" or "Nil Per Os or Nil By Mouth" if the initial order recommended these. • *If the patient was "Nil Per Os or Nil By Mouth" pick one of the reasons why this was recommended from the list. If other, specify.*

International Nutrition Survey 2014

Baseline Nutrition Assessment 2

Patient Number: ☐

ICU Name: ☐

Has the patient lost weight unintentionally over the last 3 months?

- ☐ No
- ☐ Unsure
- ☐ Yes → *If yes,* how much?
  - ☐1-5 kg / 2-11 lbs
  - ☐6-10 kg / 13-22 lbs
  - ☐11-15 kg / 24-33 lbs
  - ☐>15 kg / >33 lbs
  - ☐Do not know

Has the patient's food intake declined over the past week due to loss of appetite?

- ☐ No
- ☐ Yes → *If yes,* What was your family member's food intake in the week prior to ICU admission?
  - ☐1/4 or less of what they usually eat
  - ☐1/4 to 1/2 of what they usually eat
  - ☐1/2 to 3/4 of what they usually eat
  - ☐3/4 to all of what they usually eat
- ☐ Do not know / can't estimate

When was EN first initiated?

- ☐ EN initiated prior to ICU admission
- ☐ EN initiated in ICU: *Date (YYYY-MM-DD):* _____ *Time (HH:MM, 24h):* _____
- ☐ EN not initiated during first 12 days in ICU

When was PN first initiated?

- ☐ PN intiated prior to ICU admission
- ☐ PN initiated in ICU: *Date (YYYY-MM-DD):* _____ *Time (HH:MM, 24h):* _____
- ☐ PN not initiated during first 12 days in ICU

If PN initiated in ICU or prior to ICU admission, specify reason PN initiated: (select only one)

- ☐ Bowel ischemia
- ☐ Gastrointestinal bleed
- ☐ Gastrointestinal perforation
- ☐ Gastrointestinal surgery
- ☐ Hemodynamic instability
- ☐ Mechanical bowel obstruction
- ☐ No access to small bowel
- ☐ Not tolerating enteral feeding
- ☐ Pancreatitis
- ☐ Proximal bowel anastomosis
- ☐ Short gut syndrome
- ☐ Small bowel ileus
- ☐ Small bowel fistulae
- ☐ No clinical reason
- ☐ Other (specify): _____

What was the nutrition delivery technique recommended by the physician or dietitian at the initial order?

- ☐ Initiate EN: start at low rate and progress to hourly goal rate
- ☐ Initiate EN: start at or progress to 24 hour volume goal based hourly rate
- ☐ Initiate EN: start at hourly goal rate
- ☐ Initiate EN: keep at low rate (trophic feeds: no progression)

If trophic feeds, please specify reason (select only one):

- ☐ Patient on vasopressors
- ☐ Surgically placed jejunostomy
- ☐ Impending intubation
- ☐ Ruptured abdominal aortic aneurysm (AAA)
- ☐ Upper intestinal anastomosis
- ☐ Risk of refeeding syndrome
- ☐ Other (specify): _____

- ☐ Initiate EN: bolus feeds
- ☐ Keep Nil Per Os (NPO) or Nil By Mouth → *If NPO, please specify reason (select only one):*
  - ☐ Bowel perforation
  - ☐ Bowel obstruction
  - ☐ Proximal high output fistula
  - ☐ Other (specify): _____
- ☐ Oral nutrition
- ☐ Parenteral Nutrition

Daily Nutrition Data 1

Study day 1 is from ICU admission until midnight on that calendar day. This might be less than 24 hours. Day 2 and subsequent days are labeled by **calendar day** (i.e. midnight to midnight), **not** according to your flowsheet unless your flowsheet runs from midnight to midnight.

Example: A patient is admitted May 2nd at 14:28. Day 1 begins at 14:28 and ends May 2nd at 23:59 (Day 1 is only 9hrs, 31 min. long). Day 2 begins at 00:00 (midnight), May 3rd, and ends at 23:59 on May 3rd.

Collect data daily until ICU discharge, or until day 12, whichever comes first. Once daily data is complete, proceed to the outcomes forms.

You must collect data on consecutive days following ICU admission, **even if the patient does not receive nutrition**, and even when study days fall on weekends. If you do not work weekends, collect this data retrospectively when you return to work.

Oral nutrition	Each study day, indicate whether or not the patient received any nutrition orally/by mouth. Data on calories and protein from oral nutrition are **not** collected.
Morning Blood Glucose	Record the blood sugar reading closest to 08:00hrs. This can be either serum or capillary. If serum and capillary levels are completed at the same time or if 2 measurements are equidistant to 08:00hrs, record the highest blood glucose reading. If no blood sugars were recorded that day, indicate "none recorded".
Hypoglycemic Event	Record any blood sugar readings (up to 3 episodes per day) <3.5mmol/L (<63mg/dL). If there were more than 3 hypoglycemic events in one day, record the lowest 3 blood glucose values.
Insulin	Indicate yes or no to whether or not insulin was received. If yes, add up the total number of units of insulin over the 24 hour period regardless of route (e.g. you should include both subcutaneous and continuous drip) or type. If the patient received two types of insulin add them together to provide total units of insulin.
Propofol	Indicate "yes" if **continuous profusion ≥ 6 hours**. Indicate "no" if no propofol was given, or if provided intermittently, or if continuous <6 hours. If yes, indicate the amount given, and specify the units you are recording this value in (kcal or mL). *Note:* Propofol provides 1.1kcal/mL
Location of Feeding Tube	Choose from the list to indicate the location of the feeding tube (refers to any oro/nasogastric tube inserted for the purpose of enterally feeding the patient), or choose "no tube in place". If the feeding tube is in 2 locations one day, indicate the location it was in for the most amount of time.
Motility agents	Choose from the list to indicate if the patient received any motility agents that day. We are not asking for route or dose. If the patient has been prescribed combination therapy, select all motility agents the patient received on that day. A Motility Agent is defined as: a drug which enhances gastric emptying and/or gastrointestinal motility by increasing the frequency and/or strength of contractions in the gastrointestinal tract. This does **not** include stool softeners or laxatives such as lactulose or herbal remedies.

International Nutrition Survey 2014

Patient Number: ☐

Daily Nutrition Data 1

ICU Name: ☐

Study Day:	1 *ICU Admission*	2	3	4	5	6	7	8	9	10	11	12
Was any nutrition received orally/by mouth?	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N
Morning Blood Glucose?	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
Hypoglycemic event? (<3.5mmol/L or <63mg/dL) (enter up to 3)	1. 2. 3.	1. 2. 3.	1. 2. 3.	1. 2. 3.	1. 2. 3.	1. 2. 3.	1. 2. 3.	1. 2. 3.	1. 2. 3.	1. 2. 3.	1. 2. 3.	1. 2. 3.
Insulin? *If yes:* Units/day:	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____
Propofol (≥ 6 hours) *If yes:* Amount given: Units? ☐ kcal ☐ mL	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____
Location of Feeding Tube: *(Select one)*												
Gastric	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Small bowel	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
No tube in place	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Motility Agents *If yes, select all that apply:*	☐Y ☐N	☐Y ☐N	☐Y ☐N	☐Y ☐N	☐Y ☐N	☐Y ☐N	☐Y ☐N	☐Y ☐N	☐Y ☐N	☐Y ☐N	☐Y ☐N	☐Y ☐N
Alizapride	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Cinitapride	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Cisapride	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Domperidone	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Erythromycin	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Itopride	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Lesuride	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Methylnaltrexon	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Metoclopramide	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Mosapride	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Naloxone	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Other (specify)	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____

Daily Nutrition Data 2

This Case Report Form is specific to burn units only and is to be completed daily for each burns patient.

Did the goal nutrition requirements change today	Each day, indicate if the patient's goal nutrition requirements for calories and protein have changed. For Study Day 1, indicate if the nutrition goals changed from the Baseline Nutrition Assessment 1 form and for subsequent days indicate if the nutrition goals changed from the previous day. *If yes,* enter the total kilocalories and protein provided by the new goal regimen according to the dietitians' or physicians' recommendation. Include kilocalories from protein. If a range is prescribed, indicate the midpoint of the range. If a patient is receiving propofol and on EN and/or PN, enter the prescription before adjusting the rate of EN/PN for propofol.
Were oral nutritional supplements received?	Indicate if the patient consumed oral nutritional supplements by mouth. Do **not** include any oral nutritional supplements received by feeding tube. *If yes,* enter the total kilocalories and protein consumed from the oral nutritional supplements. Do **not** include the kilocalories or protein consumed from any other foods or beverages. Oral nutritional supplements are defined as liquids, semi-solids or powder products containing macronutrients and micronutrients that are used to supplement one's diet with the aim of increasing oral nutritional intake.
Did the patient receive IV glucose?	Indicate if the patient received any form of IV glucose or dextrose (eg. D5W, D5NS). *If yes*, indicate the total calories received from the glucose/dextrose solution. Do not include the calories received from any non-glucose/dextrose solutions.
Medication received	Indicate if the patient received oxandrolone or propanol. We are not collecting data on medications not listed or on the dose received.

International Nutrition Survey 2014

Daily Nutrition Data 2

Patient Number: ☐

ICU Name: ☐

Study Day:	**1** ***ICU Admission***	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
Did the goal nutrition requirements change today…	...from baseline? ☐ Y ☐ N	...from yesterday? ☐ Y ☐ N	...from yesterday? ☐ Y ☐ N	...from yesterday? ☐ Y ☐ N	...from yesterday? ☐ Y ☐ N	...from yesterday? ☐ Y ☐ N	...from yesterday? ☐ Y ☐ N	...from yesterday? ☐ Y ☐ N	...from yesterday? ☐ Y ☐ N	...from yesterday? ☐ Y ☐ N	...from yesterday? ☐ Y ☐ N	...from yesterday? ☐ Y ☐ N
If yes, specify new nutrition goals:	Kcal: _____ Protein: (g) _____	Kcal: _____ Protein: (g) _____	Kcal: _____ Protein: (g) _____	Kcal: _____ Protein: (g) _____	Kcal: _____ Protein: (g) _____	Kcal: _____ Protein: (g) _____	Kcal: _____ Protein: (g) _____	Kcal: _____ Protein: (g) _____	Kcal: _____ Protein: (g) _____	Kcal: _____ Protein: (g) _____	Kcal: _____ Protein: (g) _____	Kcal: _____ Protein: (g) _____
Were oral nutritional supplements received?	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N
If yes, specify total kilocalories (kcal) and protein (g) received from oral nutrition supplements	Kcal: _____ Protein: (g) _____	Kcal: _____ Protein: (g) _____	Kcal: _____ Protein: (g) _____	Kcal: _____ Protein: (g) _____	Kcal: _____ Protein: (g) _____	Kcal: _____ Protein: (g) _____	Kcal: _____ Protein: (g) _____	Kcal: _____ Protein: (g) _____	Kcal: _____ Protein: (g) _____	Kcal: _____ Protein: (g) _____	Kcal: _____ Protein: (g) _____	Kcal: _____ Protein: (g) _____
Did the patient receive IV glucose?	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N
If yes, specify kilocalories received from IV glucose source	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
Medication received: Oxandrolone Propanolol	 ☐ Y ☐ N ☐ Y ☐ N	 ☐ Y ☐ N ☐ Y ☐ N	 ☐ Y ☐ N ☐ Y ☐ N	 ☐ Y ☐ N ☐ Y ☐ N	 ☐ Y ☐ N ☐ Y ☐ N	 ☐ Y ☐ N ☐ Y ☐ N	 ☐ Y ☐ N ☐ Y ☐ N	 ☐ Y ☐ N ☐ Y ☐ N	 ☐ Y ☐ N ☐ Y ☐ N	 ☐ Y ☐ N ☐ Y ☐ N	 ☐ Y ☐ N ☐ Y ☐ N	 ☐ Y ☐ N ☐ Y ☐ N

Daily Enteral Nutrition Data 1

If the patient is on combination EN and PN, record calories/protein from EN here, and record nutrition from PN on the Daily PN Data form (i.e. do not include calories/protein from PN on the EN page).

Note: record calories/protein from formulas, protein supplements, and other supplements **separately.**

Enteral nutrition received?	Each study day, indicate whether or not the patient received Enteral Nutrition.
EN Formula(s)	Refer to the taxonomy (see Appendix C) to record enteral formula(s) received. You may specify up to 3 formulas per day. If the patient received more than 3 formulas in a day, select the 3 that provided the largest volumes but account for all calories and protein the patient received from EN. If, on any of the first 12 days in ICU, you indicate a formula which is not found in the EN formula taxonomy (see Appendix C) be sure to specify: • company and product name • If the product is polymeric • If the product contains supplemental glutamine (>10 g/L) in addition to the glutamine found naturally in the product • If the product contains supplemental arginine (>4.5 g/L) in addition to the arginine found naturally in the product • If the product contains fish oils Note that if you cannot calculate the kcal and protein provided by a formula (e.g. congee, rather than a formula manufactured by a company) this would **not** be considered EN.
Kilocalories received from EN	The total calories (kcal) from EN formula(s) will need to be calculated by the dietitian daily as follows: • Include calories from protein • Do **NOT** include calories from other supplements • Do **NOT** include calories from propofol here o Calories from propofol are to be recorded separately on **Daily Nutrition Data 1 form** • Do NOT include calories from other IV solutions here o Calories from IV glucose/dextrose are to be recorded on the **Daily Nutrition Data 2 form** • Include calories from **all** EN formulas, even if the patient received nutrition from >3 formulas/day
Protein received from EN	Total protein (g) will need to be calculated by the dietitian daily as follows: • Do **NOT** include protein from additional supplements • Do **NOT** include protein from glutamine supplements • Include protein from **all** EN formulas, even if the patient received nutrition from >3 formulas/day
Supplemental Protein	Indicate yes or no for whether or not a modular protein supplement was given. If yes, refer to the taxonomy (see Appendix C) to record what supplement was given. If more than one supplement was given, select the one that provided the largest amount of protein. • Do **not** record glutamine supplements here; refer to the Daily Nutrition: Supplements form.

	A modular protein supplement is defined as: a concentrated protein source. This does not include high-protein enteral formulas. High-protein formulas (that also have lipid, carbohydrate and micronutrient components) should be specified under the EN Formula section.
Kilocalories received from Supplemental Protein	If the patient received a modular protein supplement, indicate total calories received (kcal) from the modular protein supplement (i.e. include calories from protein). • Include calories from **all** modular protein supplements
Protein received from Supplemental Protein	If the patient received a modular protein supplement, indicate the protein received (g) from the modular protein supplement. • Include protein from **all** modular protein supplements • Do **NOT** include protein from glutamine supplements
Other Non-protein Modular Supplements	Indicate yes or no for whether or not non-protein modular supplements were given. If yes, refer to the taxonomy (see Appendix C) to record supplement(s) provided. If more than two supplements were given, select the two that provided the largest volumes. A non-protein modular supplement is defined as: single macronutrients used in addition to enteral formulas. This includes glucose polymers, and fat emulsions. Typically modular supplements do not provide a source of micronutrients.
Kilocalories from Other Non-protein Supplements	If the patient received a non-protein modular supplement, indicate calories received (kcal) from the non-protein modular supplement.

International Nutrition Survey 2014

Daily Nutrition: Enteral Nutrition 1

Patient Number: ☐

ICU Name: ☐

Study Day:	**1** *ICU Admission*	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
Was enteral nutrition received?	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N
If yes:												
Enteral formula(s): *(Select up to 3, see taxonomy)*[1]	1. 2. 3.	1. 2. 3.	1. 2. 3.	1. 2. 3.	1. 2. 3.	1. 2. 3.	1. 2. 3.	1. 2. 3.	1. 2. 3.	1. 2. 3.	1. 2. 3.	1. 2. 3.
Kilocalories received from enteral formula(s):	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
Protein (g) received from enteral formula(s):	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
Supplemental protein?	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N
Specify: *(see taxonomy)*	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
Kilocalories received from supplemental protein:	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
Protein (g) received from supplemental protein:	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
Other non-protein modular supplements?	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N
Specify (up to 2): *(see taxonomy)*	1. 2.	1. 2.	1. 2.	1. 2.	1. 2.	1. 2.	1. 2.	1. 2.	1. 2.	1. 2.	1. 2.	1. 2.
Kilocalories received from other non-protein modular supplements:												

[1] If on any of the above days an enteral nutrition formula(s) was/were provided which is/are not found in the International Nutrition Survey taxonomy, specify:

Company/manufacturer name: _____ Product name: _____

Is the formula polymeric? ☐ Yes ☐ No *Does the formula contain:* ☐ Fish oil ☐ Supplemental glutamine (>10g/L or powder) ☐ Supplemental arginine (>4.5 g/L)

Filled out on each day this patient received enteral nutrition.

Daily Enteral Nutrition Data 2

EN Interruptions	Choose “yes” or “no” for whether or not EN was interrupted today. If yes, indicate the total time (hh:mm) EN was interrupted for. An interruption is defined as: EN being **stopped** at any point after it was initiated, with the intent that EN be restarted again. This does **not** include: • Brief or transient (i.e. less than one hour) interruptions for short bedside procedures • For cyclic or bolus feeding, time the patient was never intended to be fed according to the prescribed feeding schedule • Reduction in rate of feeds • Stopping the feeds permanently and transitioning to oral feeds Select “yes” to this question if the patient received EN at some point on this calendar day, but feeds were stopped for some reason. If the patient did not receive feeds for an entire calendar day, the patient did **not** receive EN on this day, and you should indicate this in the “type of nutrition received” question at the beginning of the daily nutrition data section. Example 1: EN was initiated at 08:30 on study day 1. EN was stopped at 14:30 for a bedside procedure. EN was started again at 18:30. *The time from 00:00 until 08:30 does not constitute an interruption. EN was interrupted from 14:30 until 18:30, which equals 4 hours.* Example 2: EN was initiated at 08:30 on study day 1. EN was stopped at 14:30. EN was not started again until study day 3 at 04:30, and then there were no further interruptions. *EN was interrupted from 14:30 until the end of day 1 (midnight), which equals 9 hours and 30 minutes. On day 2, daily EN data is not completed because the patient did not receive EN. On day 3, midnight until 04:30 does not constitute an interruption, so no interruptions are recorded for day 3.* If EN was interrupted, specify all reason(s) that EN was interrupted, by selecting from the list provided.

International Nutrition Survey 2014

Daily Nutrition: Enteral Nutrition 2

Patient Number: ☐

ICU Name: ☐

Study Day:	**1** *ICU Admission*	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
Was EN interrupted today?	☐Y ☐N	☐Y ☐N	☐Y ☐N	☐Y ☐N	☐Y ☐N	☐Y ☐N	☐Y ☐N	☐Y ☐N	☐Y ☐N	☐Y ☐N	☐Y ☐N	☐Y ☐N
If yes: Total time interrupted: (hh:mm)	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
Are the reason(s) EN was interrupted known?	☐Y ☐N	☐Y ☐N	☐Y ☐N	☐Y ☐N	☐Y ☐N	☐Y ☐N	☐Y ☐N	☐Y ☐N	☐Y ☐N	☐Y ☐N	☐Y ☐N	☐Y ☐N
If yes, select all that apply:												
Fasting for extubation/intubation/trach procedure	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Fasting for other bedside procedure	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Fasting for operating room procedure	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Fasting for radiology suite procedure	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Fasting for administration of medications	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Intolerance to enteral feeding - high gastric residuals	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Intolerance to enteral feeding - increased abdominal girth or abdominal distension	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Intolerance to enteral feeding - vomiting/ emesis	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Intolerance to enteral feeding - diarrhea	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Intolerance to enteral feeding - subjective discomfort	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Necrotic bowel/gut ischemia	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
No enteral access available/enteral access lost, displaced or malfunctioning	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Inotropes, vasopressor requirement	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Subject deemed too sick to continue enteral feeding	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Enteral feeding formula not available	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
New contraindication to EN	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Trial of oral intake	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Other *(specify)*	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____

Filled out on each day this patient received enteral nutrition.

Daily Parenteral Nutrition Data

If the patient is on combination EN and PN, record calories/protein from PN here, and record nutrition from EN on the Daily EN Data form (i.e. do not include calories/protein from EN on the PN page).

Parenteral Nutrition is typically defined as: provision of carbohydrates **plus** protein and/or lipid, with or without micronutrients, electrolytes or other additives, delivered directly into a vein.

Infusion of dextrose alone does **not** constitute parenteral nutrition (ie. If a patient only received dextrose in the absence of amino acids, you should answer "no" for whether or not the patient received parenteral nutrition).

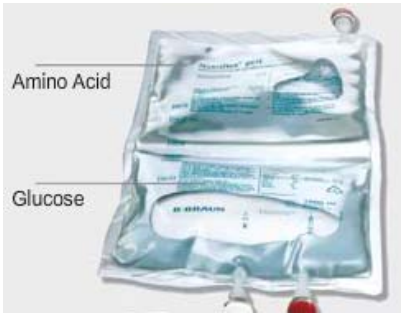
Parenteral Nutrition Received?	Each study day, indicate whether or not the patient received Parenteral Nutrition.

For types of Parenteral Nutrition see figures below for visual examples

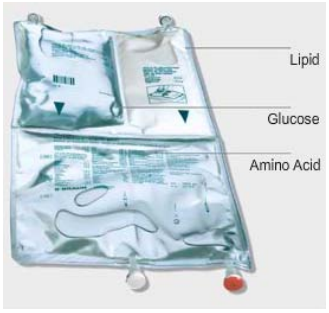
Multi-chamber bag: macronutrients are in separate compartments within a single bag. Includes:

- 2-in-1 dextrose and amino acid formulation, with or without lipids hung separately as a piggy back infusion OR
- 3-in-1 dextrose, amino acid and lipid formulation

2 in 1



3 in 1



Admixture or single bottle system: includes:

- **Compounded or manually prepared admixture** of dextrose, amino acids and/or lipids mixed together within a single bag, with or without lipids hung separately as a piggy back infusion OR
- **Single bottle system:** each macronutrient is hung in separate containers. May include any of the following configurations:
  - Dextrose + amino acids
  - Dextrose + lipids
  - Dextrose + amino acids + lipids

Dextrose + amino acids

Lipids

Refer to the taxonomy (see Appendix D) to record parenteral formula(s) provided. Specify 1 "multi-chamber bag" (and 1 additional lipid formula if applicable) ***or*** indicate "admixture or single bottle system" to select 1 amino acid and 1 carbohydrate and 1 lipid formula (if applicable). *Note*: If you select "other" as a PN solution provided in the lipid or multi-chamber bag categories, please specify what type of lipid was provided in that solution. **<u>"Custom" PN Admixtures</u>: Whenever possible, select "admixture or single bottle system" and indicate the lipid, carbohydrate and protein components from the custom solution from the taxonomy provided. If this is not possible, select "other" and be sure to specify what type of lipid was provided.**	
Kilocalories from parenteral formula(s)	Total calories received (kcal) will need to be calculated by the dietitian daily as follows: • Include calories from parenteral protein • Include calories from other parenteral supplements • Do **NOT** include calories from enteral formula or modular supplements • Do **NOT** include calories from propofol as this is to be recorded separately on the **Daily Nutrition Data form**. • Do **NOT** include calories from other IV solutions
Protein from parenteral formula(s)	Total protein will need to be calculated by the dietitian daily as follows: • Include protein from parenteral supplements, if applicable • Do **NOT** include calories from enteral formula or modular supplements • Do **NOT** include protein from glutamine supplements
IV amino acids	If the patient received IV amino acids in the absence of dextrose, indicate the solution provided, and protein and kcal received from this solution.
IV lipids	If the patient received IV lipids in the absence of dextrose, indicate the emulsion provided, and kcal received from this product.

International Nutrition Survey 2014

Daily Nutrition: Parenteral Nutrition

Patient Number: ____

ICU Name: ____

Study Day:	**1** *ICU Admission*	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
Was parenteral nutrition received?	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N
If yes:												
Parenteral solution(s): [1] *(See PN taxonomy)* Multi-chamber bag:	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
OR Admixture *or* single bottle system: Amino Acid:	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
Dextrose:	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
Lipid: [1] *(If lipid is "other," specify lipid type)*	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
Kilocalories received from parenteral formula(s):	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
Protein (g) received from parenteral formula(s):	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
If no:												
Did the patient receive IV amino acids **only?**	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N
If yes, Amino acid solution: *(See PN taxonomy)*	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
Kcal received:	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
Protein (g) received:	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
Did the patient receive IV lipids **only**?	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N
If yes, Lipid solution: [1] *(See PN taxonomy)*	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
Kcal received:	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____

[1] If on any of the above days an parenteral nutrition formula(s) was/were provided which is/are not found in the International Nutrition Survey taxonomy, specify:

Company/manufacturer name: _____ Product name: _____ Lipid type: ☐ Olive oil based ☐ Soybean oil based ☐ MCT/LCT Physical Mixture ☐ MCT/LCT Structured Form ☐ Mixture of soy, MCTs, olive and fish oil ☐ Fish oil based ☐ Other, specify: _____

Filled out on each day this patient received parenteral nutrition.

Daily Nutrition: Supplemental Nutrients

Indicate each day if the patient received any of the following supplemental nutrients. If not listed, we are not collecting data on its use.

IV Supplemental Vitamin C	This refers to vitamin C given as a supplement over and above what would normally be present in the standard enteral or parenteral formula. Indicate which, if any, days the patient received vitamin C, and on each day vitamin C was provided and indicate the dose in milligrams. Be sure to record the value under the appropriate administrated route (IV vs. EN/PO).
EN/PO Supplemental Vitamin C	
IV Supplemental Zinc	This refers to zinc given as a supplement over and above what would normally be present in the standard parenteral formula. Indicate which, if any, days the patient received zinc, and on each day zinc was provided and indicate the dose in milligrams. Be sure to record the value under the appropriate administrated route (IV vs. EN/PO).
EN/PO Supplemental Zinc	
IV Supplemental Glutamine	This refers to glutamine given as a supplement over and above what would normally be present in the standard enteral or parenteral formula. Indicate which, if any, days the patient received supplemental glutamine, and on each day glutamine was provided and indicate the dose in grams. Be sure to record the value under the appropriate administrated route (IV vs EN/PO).
EN/PO Supplemental Glutamine	
IV Supplemental Selenium	This refers to selenium given as a supplement over and above what would normally be present in the standard enteral formula, parenteral solution, or multivitamin mineral supplement. Indicate which, if any, days selenium was given, and on each day selenium was provided and indicate the dose in micrograms. Be sure to record the value under the appropriate administrated route (IV vs EN/PO).
EN/PO Supplemental Selenium	
Supplemental Probiotics	This refers to probiotics given as a supplement over and above what would normally be present in the standard enteral formula. Indicate which, if any, days they were received. You do not need to indicate type or dose. <u>Probiotics are defined as:</u> a commercial preparation of viable, defined microorganisms in sufficient numbers which alter the microflora (by implantation or colonization) in a compartment of the patient and by that may exert beneficial health effects in this patient.

International Nutrition Survey 2014

Daily Nutrition: Supplemental Nutrients

Patient Number: ☐

ICU Name: ☐

Did the patient receive any of the following on any of the first 12 days in ICU?

Study Day:	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
IV Supplemental Vitamin C *If yes,* dose (mg):	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____
EN/PO Supplemental Vitamin C *If yes,* dose (mg):	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____
IV Supplemental Zinc *If yes,* dose (mg):	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____
EN/PO Supplemental Zinc *If yes,* dose (mg):	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____
IV Supplemental glutamine *If yes,* dose (grams):	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____
EN/PO Supplemental glutamine *If yes,* dose (grams):	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____
IV Supplemental selenium *If yes,* dose (μg):	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____
EN/PO Supplemental selenium *If yes,* dose (μg):	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____	☐ Y ☐ N _____
Supplemental Probiotics	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N

Outcomes Information

This form is to be completed upon discharge from hospital, if the patient dies, or 60 days after the patient's ICU admission, **whichever comes first.**

Note: Death or hospital discharge marks the end of data collection. We are not asking you to follow up for 60 days after discharge home or transfer to another healthcare facility.

Did the patient die in ICU?	• Answer yes or no • Follow the arrows to complete the form • Dates are to be reported in the format YYYY-MM-DD and times are to be report in the format hh:mm using the 24-hour clock • 'END OF FORM' indicates that you are done completing the form. Do not proceed to answer any further questions on the form, including question #2. • 'Proceed to question #2' indicates that the next question to be answered is 'did the patient die in hospital?' Note: 'Patient still alive in ICU at day 60?' = Patient **still present** in **your** ICU at day 60? Once the patient is discharged from ICU and not readmitted to your ICU within 48 hours, you may answer this question; you do not need to wait until day 60. <u>Definition of discontinuing mechanical ventilation:</u> If the patient is extubated for **more than 48 hrs**, this date and time of extubation is considered to be when mechanical ventilation was discontinued, regardless if re-intubated later. If the pt was reintubated **within** 48 hrs, we consider this as the **same** episode of mechanical ventilation which means that the mechanical ventilation discontinuation date and time would be recorded once extubated for at least 48 hrs.
Did the patient die in hospital?	• Answer yes or no • Follow the arrows to complete the form • Dates are to be reported in the format YYYY-MM-DD and times are to be report in the format hh:mm using the 24-hour clock • 'END OF FORM' indicates that you are done completing the form. Do not proceed to answer any further questions on the form. Note: 'Patient still alive in hospital at day 60?' = Patient **still present** in **your** hospital at day 60? Once the patient is discharged from the hospital, you may answer this question; you do not need to wait until day 60. <u>Definition of discontinuing mechanical ventilation:</u> If the patient is extubated for **more than 48 hrs**, this date and time of extubation is considered to be when mechanical ventilation was discontinued, regardless if re-intubated later. If the pt was reintubated **within** 48 hrs, we consider this as the **same** episode of mechanical ventilation which means that the mechanical ventilation discontinuation date and time would be recorded once extubated for at least 48 hrs.

International Nutrition Survey 2014

Outcomes Information

Patient Number: ____

ICU Name: ____

1) Did the patient die in the ICU?

☐ **Yes** → Date of death: 2 0 Y Y M M D D Time: H H M M

Was mechanical ventilation discontinued prior to ICU death?

☐ Yes → Date discontinued: 2 0 Y Y M M D D Time: H H M M (**END OF FORM**)

☐ No (**END OF FORM**)

☐ **No** → Patient in ICU at day 60?

☐ Yes → Was mechanical ventilation discontinued in ICU?

☐ Yes → Date discontinued: 2 0 Y Y M M D D Time: H H M M (**END OF FORM**)

☐ No (**END OF FORM**)

☐ No → Date of ICU discharge: _____ Time: _____ (proceed to question #2)

2) Did the patient die in hospital?

☐ **Yes** → Date of death: 2 0 Y Y M M D D Time: H H M M

Was mechanical ventilation discontinued in ICU?

☐ Yes → Date discontinued: 2 0 Y Y M M D D Time: H H M M (**END OF FORM**)

☐ No → Was mechanical ventilation discontinued prior to hospital death?

☐ Yes → Date discontinued: 2 0 Y Y M M D D Time: H H M M (**END OF FORM**)

☐ No (**END OF FORM**)

☐ **No** → Patient in hospital at day 60?

☐ Yes → Was mechanical ventilation discontinued in ICU?

☐ Yes → Date discontinued: 2 0 Y Y M M D D Time: H H M M (**END OF FORM**)

☐ No → Was mechanical ventilation discontinued in hospital?

☐ Yes → Date discontinued: 2 0 Y Y M M D D Time: H H M M (**END OF FORM**)

☐ No (**END OF FORM**)

☐ No → a) Date of hospital discharge: 2 0 Y Y M M D D Time: H H M M

b) Was mechanical ventilation discontinued in ICU?

☐ Yes → Date discontinued: 2 0 Y Y M M D D Time: H H M M (**END OF FORM**)

☐ No → Was mechanical ventilation discontinued in hospital?

☐ Yes → Date discontinued: 2 0 Y Y M M D D Time: H H M M (**END OF FORM**)

☐ No → Patient was transferred while still mechanically ventilated: (**END OF FORM**)

☐ To an ICU in another hospital ☐ Home

☐ To a ward in another hospital ☐ To another location, *specify:* _____

☐ To a long term care facility

Site Finalization

Once you have completed data collection and data entry for all patients, please finalize data entry at your site by answering the following questions and completing the Site Finalization form on REDCap:

Total Number of Patients Screened:	
Of patients screened, number of patients who were ≥18 years old (or ≥16, if applicable)?	
Of patients screened and ≥18 years old (or ≥16, if applicable), number intubated within 1st 48 hours of admission:	
Of patients screened, and ≥18 years old (or ≥16, if applicable), and intubated within 1st 48 hours, number who stayed in the ICU ≥72 hours:	
Of eligible patients (≥18 or ≥16 years old, intubated within 1st 48 hours, and stayed in the ICU ≥72 hours), number included in the survey:	

Simply total each column of your screening log to obtain the answers to these questions.

All patients at my site for the International Nutrition Survey 2014 have been finalized, and the data is complete and accurate to the best of my knowledge.	☐ Yes

Note: This site finalization form can be accessed on REDCap by clicking on the link in the "Resources" section in the left-hand menu.

Appendix A

Height Conversion Table

One foot = 12 inches
One inch = 2.54 centimeters

Feet/Inches	Inches	Centimeters	Feet/Inches	Inches	Centimeters
4ft 6 inch	54	137	5ft 10 inch	70	178
4ft 7 inch	55	140	5ft 11 inch	71	180
4ft 8 inch	56	142	6 ft	72	183
4ft 9 inch	57	145	6ft 1 inch	73	185
4ft 10 inch	58	147	6ft 2 inch	74	188
4ft 11 inch	59	150	6ft 3 inch	75	191
4ft 12 inch	60	152	6ft 4 inch	76	193
5ft 1 inch	61	155	6ft 5 inch	77	196
5ft 2 inch	62	157	6ft 6 inch	78	198
5ft 3 inch	63	160	6ft 7 inch	79	201
5ft 4 inch	64	163	6ft 8 inch	80	203
5ft 5 inch	65	165	6ft 9 inch	81	206
5ft 6 inch	66	168	6ft 10 inch	82	208
5ft 7 inch	67	170	6ft 11 inch	83	211
5ft 8inch	68	173	7ft	84	213
5ft 9inch	69	175	7ft 1 inch	85	216

Appendix B

Weight Conversion Table

One pound = 0.45 kilograms

Pounds	Kilograms	Pounds	Kilograms	Pounds	Kilograms
50	22.7	180	81.6	310	140.6
55	24.9	185	83.9	315	142.9
60	27.2	190	86.2	320	145.1
65	29.5	195	88.5	325	147.4
70	31.8	200	90.7	330	149.7
75	34.0	205	93.0	335	152.0
80	36.3	210	95.3	340	154.2
85	38.6	215	97.5	345	156.5
90	40.8	220	99.8	350	158.8
95	43.1	225	102.1	355	161.0
100	45.4	230	104.3	360	163.3
105	47.6	235	106.6	365	165.6
110	49.9	240	108.9	370	167.8
115	52.2	245	111.1	375	170.1
120	54.4	250	113.4	380	172.4
125	56.7	255	115.7	385	174.6
130	59.0	260	117.9	390	176.9
135	61.2	265	120.2	395	179.2
140	63.5	270	122.5	400	181.4
145	65.8	275	124.7	405	183.7
150	68.0	280	127.0	410	186.0
155	70.3	285	129.3	415	188.2
160	72.6	290	131.5	420	190.5
165	74.8	295	133.8	425	192.8
170	77.1	300	136.1	430	195.0
175	79.4	305	138.3	435	197.3
180	81.6	310	140.6	440	199.6

Appendix C

Enteral Nutrition Formulas – Sorted by Company

Abbott International

- AlitraQ
- Edanec
- Edanec HN
- Ensure
- Ensure Advance
- Ensure Fibre
- Ensure Gold
- Ensure HP
- Ensure Prebiotics
- Ensure Plus
- Glucerna 1.0 Cal
- Glucerna 1.2
- Glucerna 1.5
- Glucerna EX
- Glucerna RTH
- Glucerna Select
- Glucerna SR
- Glucerna SR Triple Care
- Jevity
- Jevity 1 Cal
- Jevity 1.1 Cal
- Jevity 1.2 Cal
- Jevity 1.5 Cal
- Jevity 2 with FOS
- Jevity HiCal
- Jevity Plus
- Jevity Plus 1.5 Cal
- Jevity Promote
- Jevity with FOS
- Nepro
- Nepro HP
- Nepro with Carb Steady
- Nutrena
- Osmolite
- Osmolite 1 Cal
- Osmolite 1.2 Cal
- Osmolite 1.5 Cal
- Osmolite High Protein
- Osmolite with Fiber
- Osmolite HN
- Osmolite HN Plus
- Oxepa
- Optimental
- Optimental 1.0
- Perative
- Pivot 1.5 Cal
- Promote
- Promote with Fiber
- Prosure
- Pulmocare
- Suplena
- Two Cal HN
- Vital 1.0 Cal
- Vital 1.5 Cal
- Vital AF 1.2 Cal
- Vital HN
- Other Abbott Product (specify)

Ajinomoto Co. Inc

- Elental
- Medief
- Other Ajinomoto product (specify)

B. Braun

- Nutricomp Standard
- Nutricomp Standard with Fibre
- Nutricomp Standard with Fibre D
- Nutricomp
- Nutricomp Diabetes
- Nutricomp Hepa
- Nutricomp Intensive
- Nutricomp Immun
- Nutricomp MCT
- Nutricomp Peptid
- Nutricomp Energy
- Nutricomp Energy Fibre
- Other B.Braun Product (specify)

Claris

- Nourish
- Nourish CRF
- Nourish DM
- Nourish Hepa
- Nourish Plus
- Nourish Protein Plus
- Nourish Renal
- Other Claris Product (specify)

Clinico Co Ltd.

- MA-R2.0
- MA-SPLUS
- PRONA
- Other Clinico Product (specify)

Fresenius Kabi

- Diben
- Diben DRINK
- Fresubin 2 kcal DRINK
- Fresubin 2 kcal HP
- Fresubin 2 kcal HP fibre
- Diben Crème
- Fresubin 1000 complete
- Fresubin 1200 complete
- Fresubin 1500 complete
- Fresubin 1800 complete
- Fresubin 2250 complete
- Fresubin crème
- Fresubin Diabetes
- Fresubin Energy
- Fresubin Energy Fibre
- Fresubin HEPA
- Fresubin HP Energy
- Fresubin juicy DRINK
- Fresubin protein energy DRINK
- Fresubin Original
- Fresubin Original Fibre
- Fresubin YOcreme
- Fresubin Soya Fibre
- Glutamine Plus
- Intestamin
- Kabi glutamine
- Kabipro
- ProvideXtra DRINK
- Reconvan
- Supportan
- Supportan DRINK
- Survimed OPD DRINK
- Survimed OPD
- Survimed OPD HN
- Survimed Renal
- Other Fresenius Kabi Product (specify)

Hormel Health

- Hormel Health: Immun-Aid
- Hormel Health: Hepatic-Aid
- Hormel Health: Glutasorb
- Hormel Health: Healthy Shot
- Hormel Health: Hi Procal
- Hormel Health: Multimix
- Other Hormel Health product (specify)

Meiji Co. Ltd

- Inslow
- Meibalance 1.0Z
- Meibalance 1.5Z
- Meibalance HP1.0Z
- Meibalance HP1.5Z
- Meibalance Mini
- Meibalance R
- Mein
- Renalan LP
- Renalan MP
- Other Meiji Product (specify)

Nestle

- Boost 1.0 Standard
- Boost 1.5 Plus Calories
- Boost High Protein
- Boost Diabetic/Glucose Control
- Compleat
- Diabetisource AC
- Fibersource HN
- Glytrol/Nutren Glytrol
- Impact
- Impact Peptide 1.5
- Impact AR / Oral Impact
- Isosource HN
- Isosource HN Fibre
- Isosource Protein Fibre
- Isosource VHN
- Isosource VHP Fibre Free
- Isosource 1.5
- Modulen IBD
- Novasource Diabetes
- Novasource GI Control
- Novasource GI Forte
- Novasource Renal
- Nutren 1.0
- Nutren 1.0 Fiber
- Nutren 1.5
- Nutren 2.0
- Nutren Pulmonary
- Nutren Replete
- Nutren Replete Fiber
- Nutrihep
- Peptamen
- Peptamen with Prebio
- Peptamen Bariatric
- Peptamen HN
- Peptamen 1.5
- Peptamen 1.5 with Prebio[1]
- Peptamen AF 1.2 with Prebio[1]
- Peptamen AF 1.5 (Japan)
- Peptamen Standard (Japan)
- Renalcal
- Replete
- Resource 2.0
- Resource Addera
- Resource Addera Plus
- Resource Diabetic
- Resource Dialysis
- Vivonex TEN
- Vivonex Plus
- Vivonex RTF
- Other Nestle Product (specify)

Nutricia

- Cubison
- Cubitan
- Diasip
- Diason
- DuoCal
- Generaid
- Fortijuice
- Fortimel/Nutridrink 200ml
- Fortimel/Nutridrink Compact Fibre 125ml
- Fortimel/Nutridrink Compact Protein 125ml
- Fortisip
- Fortisip Compact
- Nutrison 800 Complete Multi Fibre
- Nutrison 1000 Complete Multi Fibre
- Nutrison 1200 Complete Multi Fibre
- Nutrison Advanced Protison
- Nutrison Concentrated
- Nutrison Energy
- Nutrison Energy Multi Fibre
- Nutrison Low Sodium
- Nutrison MCT
- Nutrison Multi Fibre
- Nutrison Pre
- Nutrison Protein Plus Multi Fibre
- Nutrison Protein Plus
- Nutrison Soya
- Nutrison Standard
- Nutrisorb Low Energy
- Nutrison Low Energy Multi Fibre
- Nutrisorb Low Energy Soy Multi Fibre
- Peptisorb
- Other Nutricia Product (specify)

Otsuka

- Aminoleban Oral
- Gen-DM
- RACOL-NF Liquid for Enteral Use
- Twinline
- Other Otsuka Product (specify)

Sanwa Kagaku Kenkyusho Co. Ltd

- Lifelon QL
- Recovery 1.5
- Recovery Mini
- Sanet N3
- Sanet SA
- Other Sanwa Kagaku Kenkyusho product (specify)

Terumo

- F2-alpha
- Peptino
- Rena Well 3
- Rena Well A
- Terumeal 2.0-alpha
- Terumeal-mini
- Other Terumo Product (specify)

Victus Inc

- Enterex (powder)
- Enterex Diabetic
- Enterex Hepatic
- Enterex Renal
- Immunex Plus
- Other Victus product (specify)

Miscellaneous

- Baxter: Restore-X
- British Biologicals: Pulmocare
- British Biologicals: Reno-pro HP
- Cibeles Nutrition: CN DIabetic
- Mead Johnson: Portagen
- Hexagon Nutrition: Pentasure 2.0
- Hexagon Nutrition: Pentasure
- Hexagon Nutrition: Pentasure DLS
- Karen: Enterameal Standard
- Karen: Enterameal High Fibre
- Karen: Enterameal High Protein
- Kewpie Corporation: K5-S
- National Nutrition: Argiment
- Nutritec: Nu-Life
- Venky's Albumen Care
- Wyeth: Enercal
- Wyeth: Enercal Plus
- Other (please specify)

Enteral Nutrition – Modular Protein Supplements

- Abbott: Promod
- Global Health: Procel
- Hormel Health: Propass
- Kramer Novis: Pre Protein Powder
- Llorens: Proteinex WC
- Medical Nutrition: Pro-stat
- Mirrus Advanced Nutrition: Impact Whey
- National Nutrition: Argitein
- National Nutrition: Prosource liquid
- National Nutrition: Prosource powder
- National Nutrition: Prosource no carb
- Nestle: Beneprotein Instant Protein Powder
- Nutricia: Casilan
- Nutricia: Pro-stat
- Nutricia: Protifar
- Nutricia: Uti-stat
- Panacea Biotec Ltd: Proseventy
- Pharm D: Valens Myotein
- Prosynthesis Laboratories: Unjury
- Sanwa Kagaku: Sankenlact
- Venky's Albumen rrt
- Victus: Enterex Proteinex
- Other protein supplement: Please specify

Enteral Nutrition – Other Modular Supplements

- Abbott: Juven
- Abbott: Polycose powder
- Abbott: Polycose Liquid
- Fresenius Kabi: Fresubin 5kcal shot
- Metamucil: Clear and Natural
- Nestle: Microlipid
- Nestle: MCT Oil
- Nestle: Nutrisource FIber
- Nestle: Resource Benefiber
- Nutricia: Calogen/Calogen Shots
- Nutricia: Nutilis Powder
- Nutricia: Polycal Powder / Fantomalt
- Nutricia: Polycal Liquid
- Other modular supplement: Please specify

Appendix D

Parenteral Nutrition Solutions

Remember: Parenteral Nutrition is defined as:

Single bottle system: 1 Amino acid 1 Glucose 1 Lipid	**OR**	Single bottle system: 1 Amino acid 1 Glucose	**OR**	Single bottle system: 1 Glucose 1 Lipid	**OR**	1 Multi-chamber bag	**OR**	1 Multi-chamber bag 1 Lipid

It does *not* include IV glucose alone.

Amino Acids

Baxter

- BranchAmin 4%
- Clinisol 15% Sulfite free
- Premasol 6%
- Premasol 10% Sulfite free
- Primene 10%
- Prosol 20%
- RenAmin
- Synthamin 9, 5.5%
- Synthamin 14, 8.5%
- Synthamin 17, 10%
- Synthamin 9 EF, 5,5 %
- Synthamin 14 EF, 8.5 %
- Synthamin 17 EF 10%
- Travasol 5 %
- Travasol 5.5%
- Travasol 8.5%
- Travasol 10%

B. Braun

- Aminoplasmal – 5% E
- Aminoplasmal – 10% E
- Aminoplasmal – 10%
- Aminoplasmal – 15% E
- Aminoplasmal – 15%
- Aminoplasmal Hepa 10%
- Freamine III 8.5%
- Freamine III 10%
- HepatAmine 8%
- 15% Amino Acids

Fresenius Kabi

- Aminoven 5%
- Aminoven 10%
- Aminoven 15%
- Aminoven 3.5% GE
- Aminosteril N-HEPA 8%
- Dipeptiven/ Dipeptamin
- Glamin/Glavamin
- Nephrotect 10%
- Vamin 14
- Vamin 14EF
- Vamin 18EF
- Vamin Glucose

Hospira

- Aminosyn
- Aminosyn – RF 5.2%
- Aminosyn – 3.3 M
- Aminosyn – 8.5% with electrolytes
- Aminosyn 10%
- Aminosyn – HBC 7%
- Aminosyn II (amino acid injection)
- Aminosyn II 8.5%
- Aminosyn II 8.5% with electrolytes
- Aminosyn II 10%
- Aminosyn II 15%
- Aminosyn PF
- Aminosyn – PF 7%
- Aminosyn PF 10%

Otsuka

- Aminoleban
- Amiparen

Other

- Other (please specify)

Glucose

Baxter

- Glucose 5%
- Glucose 10%
- Glucose 15%
- Glucose 20%
- Glucose 40%
- Glucose 50%
- Glucose 70%

B. Braun

- Glucose 10%
- Glucose 20%
- Glucose 40%
- Glucose 50%
- Glucose 70%

Hospira

- 10% Dextrose Injection USP
- 20% Dextrose Injection USP
- 30% Dextrose Injection USP
- 40% Dextrose Injection USP
- 50% Dextrose Injection USP
- 70% Dextrose Injection USP

Other

- Other (please specify)

Lipids

Baxter

- ClinOleic 20%
- Intralipid 20% IV Emulsion
- Intralipid 30% IV Emulsion

B. Braun

- Lipidem/Lipoplus
- Lipofundin MCT/LCT 10%
- Lipofundin MCT/LCT 20%
- Lipofundin 10% N
- Lipofundin 20% N

Fresenius Kabi

- Intralipid 10%
- Intralipid 20%
- Intralipid 30%
- Lipovenoes 10% PLR
- Lipovenoes MCT 10%
- Lipovenoes MCT 20%
- Omegaven 10%
- SMOFlipid 20%
- Structolipid 20%

Hospira

- Liposyn III 10%
- Liposyn III 20%
- Liposyn III 30%

Other

- Other (specify lipid type)

Multi-chamber bags

Ajonomoto

- Twin No.1
- Twin No.2
- Twin No.3

Baxter

- Clinimix 2.75/5 sulfite free
- Clinimix 2.75/10 sulfite free
- Clinimix 4.25/5 sulfite free
- Clinimix 4.25/10 sulfite free
- Clinimix 4.25/25 sulfite free
- Clinimix 5/10 sulfite free

- Clinimix 5/15 sulfite free
- Clinimix 5/16.6 sulfite free
- Clinimix 5/20 sulfite free
- Clinimix 5/25 sulfite free
- Clinimix 4.25/5 sulfite free
- Clinimix 4.25/10 sulfite free
- Clinimix 4.25/25 sulfite free
- Clinimix 5/15 sulfite free
- Clinimix 5/20 sulfite free
- Clinimix 5/25 sulfite free
- ClinOleic 20%
- Oliclinomel N4-550 E
- Oliclinomel N6-900 E
- Oliclinomel N7-1000
- Oliclinomel N7-1000 E
- Oliclinomel N8-800
- Oliclinomel N5-800 E
- Oliclinomel N6-900/ Oliclinomel N6-900 E
- Periolimel N4E
- Olimel N5E
- Olimel N7/Olimel N7E
- Olimel N9/Olimel N9E

B. Braun

- Nutriflex Lipid
- Nutriflex
- Procalamine
- Nutriflex Lipid Peri
- Nutriflex Lipid Plus/ Nutriflex Omega Plus
- Nutriflex Lipid Special/ Nutriflex Omega Specia

Claris

- TNA/TNA Peri

Fresenius Kabi

- Kabiven G19%
- Kabiven Central
- Kabiven Peripheral/ StructoKabiven Peripheral
- Periven
- SmofKabiven E
- SmofKabiven EF/ SmofKabiven Peripheral
- StructoKabiven EF/Structokabiven E

Hospira

- Nutrimix Dual Chamber TPN Delivery System

Otsuka

- Aminofluid
- BFLUID
- Elneopa No.1
- Elneopa No.2

Terumo

- Fulcaliq 1
- Fulcaliq 2
- Fulcaliq 3
- Hicaliq 1
- Hicaliq 2
- Hicaliq 3
- Hicaliq RF

Other

- Other (please specify, and include lipid type)

If you choose "Other" for any parenteral solution which contains lipids, please specify the lipid type:

- Olive oil based
- Soybean oil based
- MCT/LCT Physical mixture
- MCT/LCT Structured form
- Mixture of soy, MCT, olive and fish oils
- Fish oil based
- Other (specify)

Appendix E: APACHE II SEVERITY OF DISEASE CLASSIFICATION SYSTEM

Use variables from first 24 hours in ICU, only. Subject Initials ___-___

Physiologic Variable		HIGH ABNORMAL RANGE (Check one range per variable and write the severity score in the column to the right. Note: use the worst possible score for all variables, except for the GCS score.)								LOW ABNORMAL RANGE	Severity Score
	Severity Points	+4	+3	+2	+1	0	+1	+2	+3	+4	
1	Temperature – rectal (°C) (add 0.5° to oral temp, add 1.0° to auxiliary temp)	☐ ≥41°	☐ 39-40.9°	☐	☐ 38.5°-38.9°	☐ 36°-38.4°	☐ 34°-35.9°	☐ 32°-33.9°	☐ 30°-31.9°	☐ ≤29.9°	
2	Mean Arterial Pressume (mmHg)	☐ ≥160	☐ 130-159	☐ 110-129	☐	☐ 70-109	☐	☐ 50-69	☐	☐ ≤49	
3	Heart Rate (Ventricular Response)	☐ ≥180	☐ 140-179	☐ 110-139	☐	☐ 70-109	☐	☐ 55-69	☐ 40-54	☐ ≤39	
4	Resp. Rate (non-ventilated or ventilated)	☐ ≥50	☐ 35-49	☐	☐ 25-34	☐ 12-24	☐ 10-11	☐ 6-9	☐	☐ ≤5	
5	Oxygenation: a. $FIO_2 \geq 0.5$ record $A{\cdot}aDO_2$*	☐ ≥500	☐ 350-499	☐ 200-349	☐	☐ <200	☐	☐	☐	☐	
	b. $FIO_2 < 0.5$ record only PaO_2	☐	☐	☐	☐	☐ PaO_2>70	☐ PaO_2 61-70	☐	☐ PaO_2 55-60	☐ PaO_2 <55	
6	Arterial pH	☐ ≥7.7	☐ 7.6-7.69	☐	☐ 7.5-7.59	☐ 7.33-7.49	☐	☐ 7.25-7.32	☐ 7.15-7.24	☐ <7.15	
7	Serum Sodium (mmol/L)	☐ ≥180	☐ 160-179	☐ 155-159	☐ 150-154	☐ 130-149	☐	☐ 120-129	☐ 111-119	☐ ≤110	
8	Serum Potassium (mmol/L)	☐ ≥7	☐ 6-6.9	☐	☐ 5.5-5.9	☐ 3.5-5.4	☐ 3-3.4	☐ 2.5-2.9	☐	☐ <2.5	
9	Serum Creatinine (μmol/L) (double point score for acute renal failure)	☐ ≥309.4	☐ 176.8-309.3	☐ 132-177	☐	☐ 53-133	☐	☐ <53	☐	☐	
10	Hematocrit (%)	☐ ≥60	☐	☐ 50-59.9	☐ 46-49.9	☐ 30-45.9	☐	☐ 20-29.9	☐	☐ <20	
11	White Blood Count (total/mm^3) (in 1000s)	☐ ≥40	☐	☐ 20-39.9	☐ 15-19.9	☐ 3-14.9	☐	☐ 1-2.9	☐	☐ <1	
12	Glasgow Coma Score (GCS) Score=15 minus actual GCS	Eye	Verbal	Motor	(Note: The best GCS used for the 1st 24 hours) GCS Total (= Eye + Verbal + Motor)						(15 - GCS Total)
A=Total ACUTE PHYSIOLOGY SCORE (APS): Total severity points indicated for Variables 1-12 in the column to the right.											
	Serum HCO_3 (venous-mmol/L) (Use in place of variable 5 if no ABGs)	☐ ≥52	☐ 41-51.9		☐ 32-40.9	☐ 22-31.9		☐ 18-21.9	☐ 15-17.9	☐ <15	

* $A{\cdot}aDO_2 = [(FiO_2\ (713)-(PaCO_2/0.8)]-PaO_2$

A=	APS Points (see back)	
B=	Age Points (see back)	
C=	Chronic Health Points	
Total=	APACHE II Score	

Glasgow Coma Scale:

Eye Opening
4 – Spontaneous
3 – To speech
2 – To pain
1 – None

Verbal Response
5 – Oriented
4 – Confused
3 – Inappropriate words
2 – Incomprehensible words
1 – Incomprehensible sounds

Best Motor Response
6 – Obeys commands
5 – Localizes to pain
4 – Withdraws from pain
3 – Abnormal flexion
2 – Extension
1 – None

How to score age points (B):

Age (years)	Points
≤ 44	0
45-54	2
55-64	3
65-74	5
≥ 75	6

How to score chronic health points (C):

(If the patient has a history of severe organ system insufficiency or is immunocompromised assign points as follows.

1. For nonoperative or emergency postoperative patients → 5
2. For elective postoperative patients → 2
3. Patient does NOT have a history of severe organ system insufficiency and is NOT immunocompromised: → 0

Appendix F

PaO_2/FiO_2 Ratio

PaO_2/FiO_2 Ratio Table

This table is for your convenience.

		F_iO_2												
		0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80	0.85	0.90	0.95	1.00
P_aO_2	54	135	120	108	98	90	83	77	72	68	64	60	57	54
mmHg	56	140	124	112	102	93	86	80	75	70	66	62	59	56
	58	145	129	116	105	97	89	83	77	73	68	64	61	58
	60	150	133	120	109	100	92	86	80	75	71	67	63	60
	62	155	138	124	113	103	95	89	83	78	73	69	65	62
	64	160	142	128	116	107	98	91	85	80	75	71	67	64
	66	165	147	132	120	110	102	94	88	83	78	73	69	66
	68	170	151	136	124	113	105	97	91	85	80	76	72	68
	70	175	156	140	127	117	108	100	93	88	82	78	74	70
	72	180	160	144	131	120	111	103	96	90	85	80	76	72
	74	185	164	148	135	123	114	106	99	93	87	82	78	74
	76	190	169	152	138	127	117	109	101	95	89	84	80	76
	78	195	173	156	142	130	120	111	104	98	92	87	82	78
	80	200	178	160	145	133	123	114	107	100	94	89	84	80
	82	205	182	164	149	137	126	117	109	103	96	91	86	82
	84	210	187	168	153	140	129	120	112	105	99	93	88	84
	86	215	191	172	156	143	132	123	115	108	101	96	91	86
	88	220	196	176	160	147	135	126	117	110	104	98	93	88
	90	225	200	180	164	150	138	129	120	113	106	100	95	90
	92	230	204	184	167	153	142	131	123	115	108	102	97	92
	94	235	209	188	171	157	145	134	125	118	111	104	99	94
	96	240	213	192	175	160	148	137	128	120	113	107	101	96
	98	245	218	196	178	163	151	140	131	123	115	109	103	98
	100	250	222	200	182	167	154	143	133	125	118	111	105	100
	102	255	227	204	185	170	157	146	136	128	120	113	107	102
	104	260	231	208	189	173	160	149	139	130	122	116	109	104

If your patient's PaO_2 or FiO_2 value is not on the table, simply use this equation:

$$PaO_2/FiO_2 \text{ Ratio} = \frac{PaO_2}{FiO_2}$$

The lowest PaO_2/FiO_2 Ratio is to be used in the SOFA Score CRF.

Example:
Of a patient's 2 readings in one day:
1) PaO2 is 88 and FiO2 is 0.85, the ratio is 104.
2) PaO2 is 68 and FiO2 is 0.55, the ratio is 124.
The PF ratio of 104 is the lowest.