Creating a Beacon Treatment Plan Workflow

1. Complete the protocol request form. The template can be found on CHPS website, Research Nursing Core page. under “EPIC/BEACON Info” section: https://www.itmat.upenn.edu/chps/epic-beacon.html
2. Email the protocol request form draft to Bonnie Falconer (bonnie.falconer@pennmedicine.upenn.edu) for CHPS review. The CHPS In-service cannot be scheduled until the CHPS review of the protocol request form is complete.
3. Once you receive CHPS approval, submit the protocol request form to the Beacon Team by placing a ticket using the following link: Beacon Protocol Build Request. A ticket will open in the IS Self Service Portal which will be sent directly to the Beacon Team once submitted. Attach the protocol request form to the ticket before clicking the **Submit** button.
4. When the Beacon Team has received the ticket, they will notify IDS to advise that a protocol request form was received for the study. This will trigger the pharmacist to submit a medication build request form to the Beacon Team for the Investigational medication(s) required for the study.
5. **Please Note: IDS will not submit a medication build request form to the Beacon Team until after the SIV has been completed.
6. Once the Beacon Team has received the medication build request form from IDS, they will build the medications. They will then email the study team, PI, and IDS to approve the Beacon build extract and then pass it to the next reviewer while keeping everyone on the email so all are aware of the status.
7. When all approvals are received, the Beacon build will be put into production (will be available on Epic). Studies need an active protocol build in Epic in order for patients to receive treatment at CHPS.

Why does CHPS Use Beacon Treatment Plans?

Beacon treatment plans are used for infusion areas. Because CHPS PCAM 4S is mapped as an infusion area, any orders are required to be in the context of a Beacon build.

Acknowledgement

We appreciate that study teams often use the Beacon treatment plan as a reference for the study protocol. However, these are the official medical orders the CHPS RNs are working within under their nursing licenses. Therefore, we strive to minimize excess content and focus the attention of the Beacon build on the nursing orders for the safety of the patients. Please include provider and study team specific information in the “Provider Information” section of the build.

Advice for Conciseness

Do not replicate information (the same information should not be included in multiple areas of the Beacon build.)

Do not include inclusion/exclusion criteria in the build—patients will not be assigned the Beacon treatment plan until after eligibility is confirmed.

Help

Please contact Bonnie Falconer for CHPS Beacon build questions. Please email the Beacon Team at PennChartBeaconTeam@uphs.upenn.edu for Beacon-specific questions.

Please make sure you have the most up-to-date copy of this form by using the following hyperlink: Beacon Protocol Request Form **If you have any questions, please email the following distribution group:** PennChartBeaconTeam@uphs.upenn.edu	**Please provide the information applicable for the type of protocol requested.** **Standard of Care (SOC) protocol requests must be discussed with the designated disease lead prior to request form submission.** **Please submit an individual form for each arm of the study.**
Protocol Title [include UPCC ID #, IRB #, CHPS # for studies] **Protocol Description [displays when searching for protocol]** **Synonyms [aids in searching for protocol]**	**Please include all of the below:** **Protocol Title** **UPCC # if applicable** **IRB#** **CHPS#**
Dispensing Pharmacy for Investigational Meds [if applicable] **Dispensing Pharmacy for SOC Meds [if applicable]**	**IDS (and PCAM pharmacy if applicable)**
Site where patient is likely to receive treatment **Anticipated Date of Use / SIV Date**	**CHPS Outpatient PCAM: PCAM 4S** **CHPS Outpatient Presby: Presby Mutch** **CHPS Inpatient: Ravdin 6NE** **CHPS Scattersite: list unit where patient will be admitted (or unit specialty, ex: inpatient oncology unit)** **If patient is also receiving treatment in SOC infusion area, please include as well.** **Please include SIV date**
Type of Protocol Request [Check all that apply]	**SOC** ☐ **Investigational** ☐ **Oncology** ☐ **Non-Oncology** ☐ **Inpatient** ☐ **Outpatient** ☐ (Mark all that apply)

Total Number of Cycles **Cycle Length [specify if different between cycles]** **Days per Cycle [specify days eg. 1,8,15 and if different between cycles]**	Example: 6 cycles 21 day cycle length, Days 1, 8, 15
Journal Article [Required for SOC protocol]	**Reference Information: https://www _____ (mark N/A for investigational protocols)**
Required for investigational protocols	**Principal Investigator:** **Phone number: Please include PI's cell phone number so RNs can directly reach them in case of emergency** **Research Nurse/Coordinator: Please keep this up to date** **Phone number:**
Provider Information **[information that the provider should know when applying the protocol to a patient]**	Include: 1 sentence about patient population and 1 sentence about (each of) the investigational product(s). This helps provide important context to staff so they can provide more informed care to the patient. If your PI has specific preferences about what they'd like to see, please include here. This should not be repetitive with information located elsewhere in the Beacon treatment plan. Do not copy and paste large sections of the protocol into this section.
Lab Reminders **[labs to be ordered outside of treatment plan and resulted prior to treatment]** **[indicate differences between cycles/days]**	Keep this concise. Also include: **"Refer to CHPS Nursing Worksheets."** If the study may also occur on the SOC Infusion area, please include: "**For CHPS visits, refer to CHPS Nursing Worksheets."**
Treatment Conditions **[conditions in which treatment would be HELD and the provider contacted for approval to treat]** **[indicate differences between cycles/days]**	Keep this concise and specific to patients on study. Do not copy and paste inclusion/exclusion criteria from protocol. Include any parameters that must be checked using lab values, not CTCAE grading. For example: "Hold treatment until resulted and notify prescriber if: ANC < 1000/mm3 Platelets < 75,000 mm3 AST/ALT > 3 x ULN Total Bilirubin > 1.5 x ULN Serum Creatinine > 1.5 x ULN" Also include: **"Study team to contact CHPS RN once treatment conditions are met to release IP."** If this study may also occur on the SOC Infusion area, please include, **"For CHPS visits, study team to contact CHPS RN once treatment conditions are met to release IP."**

Nursing Instructions **[indicate differences between cycles/days]**	Prefer to include only: **"Refer to CHPS Nursing Worksheets."** If the study may also occur on the SOC Infusion unit, please include, "**For CHPS visits, refer to CHPS Nursing Worksheets."** If other information is included, please keep concise.
Prohibited Meds	Keep this concise. Include, **"Study team to review prohibited meds."**
Take Home Med Reminders **[prescriptions ordered outside of treatment plan for patient to take at home]**	This is for prescriptions ordered outside of the treatment plan for patient to take at home. Leave blank if N/A.
Triage Documentation **[note for triage purposes]**	CHPS does not use the triage function, write N/A.
Research Information **[for investigational protocols]**	May include patient's study ID or leave blank. If there is a dose escalation schema, may include doses for each cohort here. Do not copy and paste tables into the build. For example: "Dosing schedule based on cohorts: Cohort 1: Day 1 dose 0.15mg -> Day 8 dose 0.5mg -> Day 15 dose 1.5mg Cohort 2: Day 1 dose 0.5mg -> Day 8 dose 1.5mg -> Day 15 dose 5mg Cohort 3: Day 1 dose 1.5 mg -> Day 8 dose 5 mg -> Day 15 dose 15 mg"

Medication administration and scheduling information:

Pre-medications & Anti-emetics [include cycle and day med is given eg: Cycles:1-3 Days:1 & 8]						
Medication [volume/diluent/ duration if IV mixture]	**Dose**	**Route**	**Administration Instructions**	**Notes to Pharmacy**	**Outpatient Cycles: Days:**	**Inpatient Frequency/ Duration**
If no premeds, write N/A.	Specific dose, not a range	Specify, for example: PO, IV	Include timeframe (example: Administer over 1 hour 30-60 minutes prior to investigational product infusion.) This information will appear on the MAR.	Include any specific notes to pharmacist.	Specify, example: All Cycles, Days 1, 8, 15	Specify if inpatient, otherwise leave blank or mark N/A

Pre-hydration [include cycle and day med is given eg: Cycles:1-3 Days:1 & 8]						
Medication [volume/diluent/ duration if IV mixture]	**Dose**	**Route**	**Administration Instructions**	**Notes to Pharmacy**	**Outpatient Cycles: Days:**	**Inpatient Frequency/ Duration**
Mark as N/A if not applicable.			Specify rate of infusion and any other relevant timing. For example: "Administer over 1 hour, completing approximately 1 hour prior to starting IP."			

Treatment [include cycle and day med is given eg: Cycles:1-3 Days:1 & 8]						
Medication [volume/diluent/ duration if IV mixture]	**Dose**	**Route**	**Administration Instructions**	**Notes to Pharmacy [tubing]**	**Outpatient Cycles: Days:**	**Inpatient Frequency/ Duration**
If the IP is placebo-controlled, specify, "AB-123 or placebo" in one row instead of putting "AB-123" in one row and "placebo" in another.	Include specific amount. If dose varies, include details in above "research information" section	Specify	• If there are multiple drugs given, specify the order of administration and any amount of wait time in between. • Specify length of administration. • Include any information about expiration time and/or if a filter is needed. • Please reference the CHPS Flushing SOP before including information about a flush. • This information will appear on the MAR.		Example: Cycle 1 Day 1, 8, 15	Only use this column if this is an inpatient study

Supportive Care & Post Hydration [include cycle and day med is given eg: Cycles:1-3 Days:1 & 8]						
Medication [volume/diluent/ duration if IV mixture]	**Dose**	**Route**	**Administration Instructions**	**Notes to Pharmacy**	**Outpatient Cycles: Days:**	**Inpatient Frequency/ Duration**
Example: ondansetron	8mg	IV	Example: PRN once for nausea Please include an indication (for example, nausea, a pain score of 1-4). This is a regulatory requirement for all PRN medications.		All cycles, days "AB-123 or placebo" is given	

Emergency Medications [include cycle and day med is given eg: Cycles:1-3 Days:1 & 8]

Include Emergency Medication Order group 210 (see screenshot at end of form)?

Yes	X	**Cycles**		Days	
No					

If no, then specify desired medications, below if needed

Medication	Dose	Route	Administration Instructions	Notes to Pharmacy	Outpatient Cycles: Days:	Inpatient Frequency/ Duration
Please include any study-specific emergency meds (such as Ativan for seizure study.)						

All studies will include "Order Group #210 – Hypersensitivity/Anaphylaxis Algorithm." This order group follows HUP's hypersensitivity algorithm and is required for all patients in the interest of patient safety. If there are concerns about using this order group, please notify Bonnie Falconer who will escalate to CHPS and IDS leadership.						

Order Group #210 – Hypersensitivity/Anaphylaxis Algorithm

PRN Emergency Medications

Nursing Instructions

EPINEPHrine is FIRST LINE therapy if criteria for anaphylaxis met
Supplemental oxygen 4-8 L/min via nasal cannula
Serum tryptase to be obtained within 90 minutes of symptom onset
IV epinephrine should be started if unresponsive to IM EPINEPHrine after 3 doses

EPINEPHrine 0.3 mg/0.3 mL injection 0.3 mg

0.3 mg, intraMUSCULAR, Every 5 minutes PRN, 3 doses, Starting when released, Sequential allergic algorithm management.
Administer first if criteria met for anaphylaxis

0.3 mg intraMUSCULAR into the anterior-lateral thigh every 5 minutes up to 3 doses IF patient symptoms persist
HIGH ALERT MEDICATION

diphenhydramine 50 mg/mL injection 25 mg

25 mg, intraVENOUS, Every 4 hours PRN, 2 doses, Starting when released, Sequential allergic algorithm management.
Administer following EPINEPHrine (if anaphylaxis) or administer first if isolated hives/angioedema.

25 mg intraVENOUS over 2 minutes every 4 hours for up to 2 doses if patient > 65 years old and/or if already pre-medicated
Intravenous administration of up to 100 mg undiluted should be given at a rate of 25 mg/min.

diphenhydramine 50 mg/mL injection 50 mg

50 mg, intraVENOUS, Every 4 hours PRN, 2 doses, Starting when released, Sequential allergic algorithm management.
Administer following EPINEPHrine (if anaphylaxis) or administer first if isolated hives/angioedema.

50 mg intraVENOUS over 2 minutes every 4 hours for up to 2 doses.
Intravenous administration of up to 100 mg undiluted should be given at a rate of 25 mg/min.

methylPREDNISolone sodium succinate injection 125 mg

125 mg, intraVENOUS, Once PRN, Starting when released, Until Discontinued, Sequential allergic algorithm management.
Administer following diphenhydramine.

125 mg intraVENOUS over 2 minutes.

125 mg powder vials (Non Act-O-Vial) must be diluted with 2 mL of Sterile Water for Injection to yield a concentration of 125 mg/2 mL

famotidine PF 20 MG/2ML injection 20 mg

20 mg, intraVENOUS, Once PRN, Starting when released, Until Discontinued, Sequential allergic algorithm management.
Administer following methylprednisolone.

Dilute famotidine 20 mg/2 mL with 3 mLs of NSS to a final volume of 5mLs.
Intravenous administration should be given over 2 mins. May administer undiluted or dilute famotidine 20 mg/2 mL with 3 mLs of NSS to a final volume of 5mLs.

sodium chloride 0.9 % infusion

500 mL/hr, intraVENOUS, Once PRN, Starting when released, Until Discontinued, Sequential allergic algorithm management.
Sodium chloride 0.9% infusion intraVENOUS at 500 mL/hr and titrated based on vital signs. Indicated for the treatment of decreased blood pressure, increase in heart rate, symptoms of cardiovascular collapse (lightheaded, dizziness, hypotension) as defined by the anaphylaxis criteria.

albuterol (2.5 mg/3 mL) 0.083% nebulizer solution 2.5 mg

2.5 mg, nebulizer, Every 20 minutes PRN, 3 doses, Starting when released, Sequential allergic algorithm management.
Indication: Evidence of bronchospasm / Acute exacerbation
Nebulizer every 20 minutes for up to 3 doses as needed if wheezing is present and no response to EPINEPHRINE is observed within 5 minutes of administration

Nebulizer preferred over inhaler for patients in respiratory distress

albuterol (2.5 mg/3 mL) 0.083% nebulizer solution 2.5 mg

2.5 mg, nebulizer, Every 1 hour PRN, Starting when released, Until Discontinued, Sequential allergic algorithm management.
Indication: Evidence of bronchospasm / Acute exacerbation
AFTER administration of the every 20 minutes x 3 doses, continue every 1 hour as needed if wheezing is present and no response to EPINEPHRINE is observed within 5 minutes of administration

Nebulizer preferred over inhaler for patients in respiratory distress

albuterol inhaler 4 puff

4 puff, inhalation, Every 20 minutes PRN, 12 doses, Starting when released, Sequential allergic algorithm management.
Indication: Evidence of bronchospasm / Acute exacerbation
4 puffs inhaled via inhaler every 20 minutes for up to 12 doses if wheezing is present and no response to EPINEPHRINE is observed within 5 minutes of administration

Nebulizer preferred over inhaler for patients in respiratory distress

albuterol inhaler 4 puff

4 puff, inhalation, Every 4 hours PRN, Starting when released, Until Discontinued, Sequential allergic algorithm management.
Indication: Evidence of bronchospasm / Acute exacerbation
AFTER administration of 4 puffs inhaled via inhaler every 20 minutes for up to 12 doses, continue 2 puffs every 4 hours as needed if wheezing is present and no response to EPINEPHRINE is observed within 5 minutes of administration

Nebulizer preferred over inhaler for patients in respiratory distress

glucagon injection 1 mg

1 mg, intraVENOUS, Once PRN, Starting when released, Until Discontinued, Sequential allergic algorithm management.
For patients on beta-blocker therapy and refractory to EPINEPHrine.

1 mg intraVENOUS over 5 minutes once then followed by infusion.

glucagon 25 mg in D5W 250 mL infusion

3 mg/hr (30 mL/hr), intraVENOUS, Once PRN, Starting when released, Until Discontinued, Sequential allergic algorithm management.
Bolus Dose: 3-10 mg
Starting Infusion: 3 mg/hr
Max titration: 5 mg/hr