**Appendix** **C: Ibis Hardware/Software Specifications**

**Hardware Product Specification** **Ibis Station**

Display:

15 or 17-inch SAW touch-screen monitor

Computer:

BeagleBone Black Rev. C or better with 3 external USB ports

Connectivity:

Ethernet and WiFi are standard. (A 4G modem is available upon request).

Operating System:

Debian Linux

System Electrical Requirements: 100-240v, 50-60Hz, 65W

(For locations with poor line voltage regulation, an uninterrupted power supply (UPS) is available upon request)

**Ibis Software Version 1.5 – Product Specification**

**Ibis CareStation Software**

Version 1.5 of the Ibis software consists of three client-facing applications: The CareStation, the CarePortal, and the Analytics Portal. The CareStation is the patient interface, providing friendly prompts and reminders aligned with the patient’s daily care plan, as well as guiding patients through adverse health events, and increasing patient engagement in their own health. CareStation features include:

1. Care plan reminders, such as:
   1. Medication administration details, including medication name, dose, strength, date & time, NDC code, instructions, and an image of the medication (if available)
   2. Insulin dose reminders, based on a sliding scale
   3. Wake-up and sleep times
   4. Meal times
   5. Vitals (blood pressure, temperature, pulse rate)
   6. Other measurements, such as:
      1. Weight
      2. Oxygen saturation
      3. Blood glucose
      4. FEV1
   7. Exercise reminders
   8. Pedometer reading
   9. Clinical appointments
   10. Depression monitoring
   11. Self checks (wellness, breathing, coughing, and swelling)
2. Medical Protocols – If the CareStation detects an adverse health situation, a protocol will guide the patient through specific instructions for early intervention of hyperglycemia, hypoglycemia, episodic hypertension, fluid retention, and COPD flare-up.
3. Family images as the background of the CareStation
4. Care plan adherence for the previous day and week
5. Health tips
6. Communication with Care Navigators, tech support, and family members
7. Reward points (accumulated through successful completion of daily care plan tasks, and redeemable for rewards)
8. Alerts (Sent to assigned recipients as text messages, or viewed in the CarePortal):
   1. Missed critical meals
   2. Missed critical medications
   3. Missed critical self checks
   4. Clinical protocol alerts

**Ibis CarePortal Software**

The CarePortal is the primary access point to a patient’s information, and the tool used to create and edit care plans. The CarePortal can be accessed through any internet connected computer. Version 1.5 of the CarePortal software includes the following features:

1. Access to the CarePortal through web browsers on Mac, Windows, or Linux systems
2. Access on mobile devices, such as tablets and smart phones
3. Manage multiple patients under a single account
4. Set-up and modify care plans, including:
   1. Medication administration details, including medication name, dose, strength, date & time, NDC code, instructions, and an image of the medication (if available)
   2. Insulin dose reminders, based on a sliding scale
   3. Wake-up and sleep times
   4. Meal times
   5. Vitals (blood pressure, temperature, pulse rate)
   6. Other measurements, such as:
      1. Weight
      2. Oxygen saturation
      3. Blood glucose
      4. FEV1
   7. Exercise reminders
   8. Pedometer reading
   9. Clinical appointments
   10. Depression monitoring
   11. Self checks (wellness, breathing, coughing, and swelling)
5. Set-up and modify medical protocol parameters for hyperglycemia, hypoglycemia, episodic hypertension, fluid retention, and COPD flare-up.
6. View the patient’s scheduled, completed, and overdue tasks in real time
7. Complete patient tasks, and add notes and signatures to the tasks
8. View health and adherence alerts, including alerts for abnormal vitals or missed critical medications
9. View adherence graphs for medications, meals, vitals, exercise, and self checks
10. View graphs and trends of a patient’s blood glucose, weight, blood pressure, O2 Sat & pulse rate, temperature, exercise, self checks (wellness, breathing, coughing, and swelling), FEV1, PHQ-2 score, and pedometer reading
11. View a record of specific actions taken during a clinical protocol episode
12. Manage clinical appointments
13. View patient demographics and care team information
14. Document repository
    1. Upload, view, and download patient documents
    2. Organize patient documents in custom folders
    3. Grant other CarePortal users permission to view, download, and edit documents
15. Add general and contextual notes
16. Record acute care episodes
17. Upload family images, to be displayed on the patient’s CareStation
18. Suspend or resume patient use of the CareStation

**Ibis Analytics Portal Software**

The Ibis Analytics Portal is the tool program managers use to benchmark the effectiveness of Ibis, caregivers use to determine which patients require interventions as well as the kind of intervention they require, and doctors use to identify gaps in patient care. The most recent version of the Analytics Portal includes the following features:

1. Population level analyses of:
   1. Overall population adherence
   2. Relative trends in patient adherence
   3. Population level adherence of specific care plan items segmented by chronic condition
   4. Risk stratification of patients based on how likely they are to require hospitalization
2. Patient level analysis of:
   1. Adherence
   2. Vitals
   3. Self checks
   4. Demographics
   5. Medications