THOMAS JEFFERSON UNIVERSITY
Sidney Kimmel Cancer Center

Measuring Physical Activity in Transfusion Dependent Patients with Myelodysplastic Syndrome (MDS)

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CONFIDENTIAL

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Signature Page

The signature below constitutes the approval of this protocol and the attachments, and provides the necessary assurances that this trial will be conducted according to all stipulations of the protocol, including all statements regarding confidentiality, and according to local legal and regulatory requirements and applicable US federal regulations and ICH guidelines.

Principal Investigator:

Signed:		Date:	2/11/21
Name:	Lindsay Wilde, MD		
Title:	Assistant Professor		

Statement of Compliance

This study will be conducted in accordance with the International Conference on Harmonisation guidelines for Good Clinical Practice (ICH E6), the Code of Federal Regulations on the Protection of Human Subjects (45 CFR Part 46), and Thomas Jefferson University research policies

List of Abbreviations

AE	Adverse Event/Adverse Experience
CBC	Complete Blood Count
CFR	Code of Federal Regulations
CIOMS	Council for International Organizations of Medical Sciences
CONSORT	Consolidated Standards of Reporting Trials
CRF	Case Report Form
CRO	Clinical Research Organization
CTCAE	Common Terminology Criteria for Adverse Events
DSMC	Data and Safety Monitoring Committee
DSMP	Data and Safety Monitoring Plan
ECOG	Eastern Cooperative Oncology Group
FACT-An	The Functional Assessment of Cancer Therapy-Anemia
FDA	Food and Drug Administration
FWA	Federal wide Assurance
GCP	Good Clinical Practice
GWAS	Genome-Wide Association Studies
HIPAA	Health Insurance Portability and Accountability Act
HRQoL	Health-Related Quality of Life
IB	Investigator's Brochure
ICF	Informed Consent Form
ICH	International Conference on Harmonization
IDE	Investigational Device Exemption
IND	Investigational New Drug Application
IRB	Institutional Review Board
MDS	Myelodysplastic Syndrome
MedDRA	Medical Dictionary for Regulatory Activities
MOP	Manual of Procedures
N	Number (typically refers to participants)
NCI	National Cancer Institute
NIH	National Institutes of Health
OHRP	Office for Human Research Protections
PHI	Protected Health Information
PI	Principal Investigator
PRC	Protocol Review Committee
QA	Quality Assurance
QC	Quality Control
RBC	Red Blood Cell

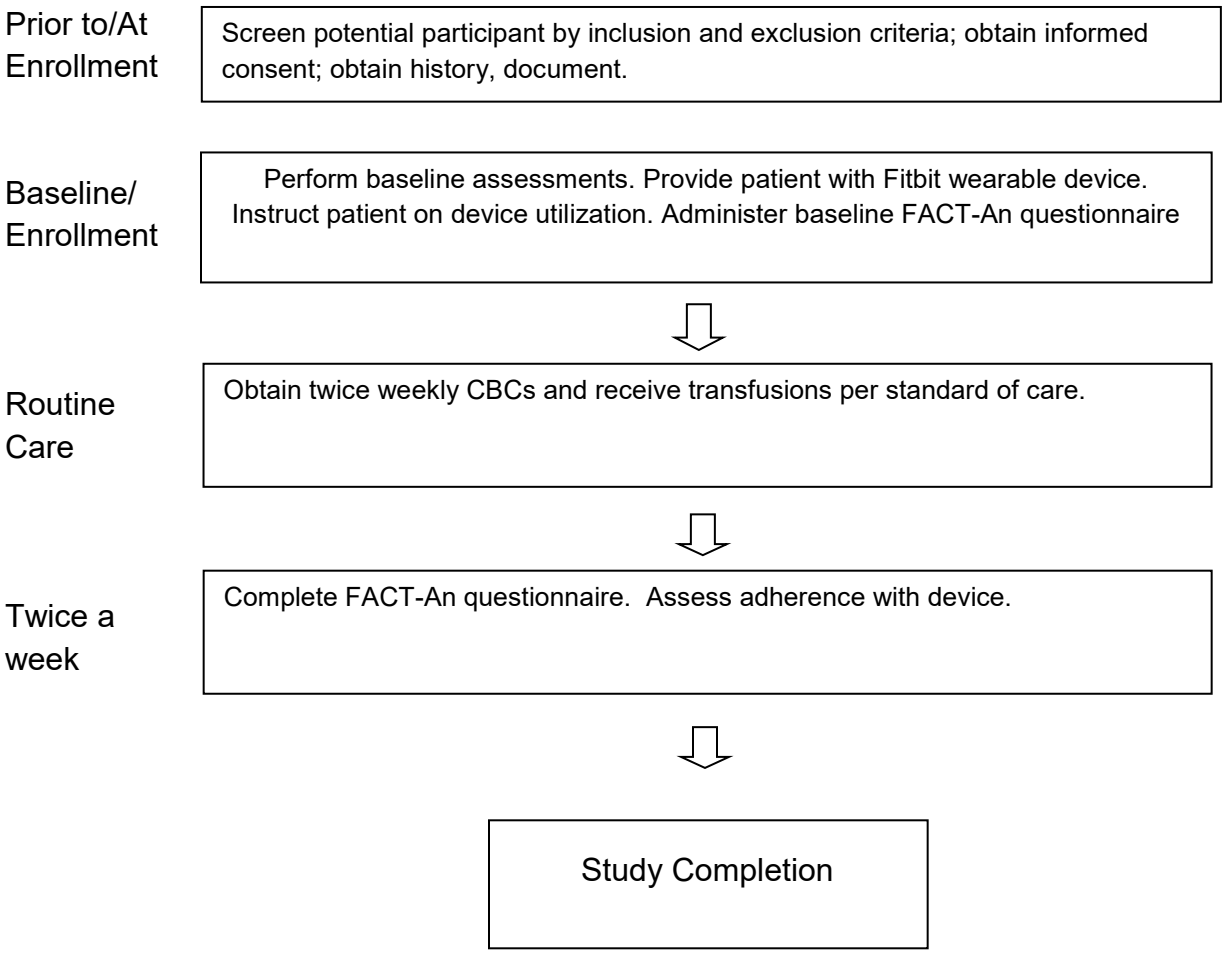
SAE	Serious Adverse Event/Serious Adverse Experience
SDS	Safety Data Sheet (formerly MSDS; Material Safety Data Sheet)
SKCC	Sidney Kimmel Cancer Center
SOP	Standard Operating Procedure
TJU	Thomas Jefferson University
UAP	Unanticipated Problem

Study Summary

Title:	Measuring Physical Activity in Transfusion Dependent Patients with Myelodysplastic Syndrome (MDS)
Précis:	This will be a single-arm, prospective, observational study that will collect data on **daily step count, heart rate,** and anemia-related **symptoms** in patients with **red blood cell transfusion dependent MDS**. Patients will be provided with a **wearable activity monitor**, which will be used to monitor daily step count and heart rate. Devices will be paired with a centralized data aggregation platform which will automatically collect and store data. Anemia-related symptom and quality of life data will be assessed using the **FACT-An questionnaire** at baseline and then twice a week during the study period. Feasibility will be measured by accrual rate, Fitbit compliance rate and study completion rate. Acceptability will be measured by a satisfaction survey and a brief interview at the end of 3-month study.
Objectives:	Primary: • To assess the feasibility and patient acceptability of using a Fitbit to monitor daily step count and heart rate. Secondary: • To graph changes in daily step count, average daily resting heart rate, Fact-An score (assessed before and one day after each transfusion), and hemoglobin level.
Population:	Red blood cell transfusion dependent patients with MDS
Phase:	Pilot Study
Number of Sites:	1 site (TJUH)
Description of Intervention:	Patients will be given an activity tracker to wear continuously for 90 days
Study Duration:	12 months

Participant Participation Duration:	90 days
Estimated Time to Complete Enrollment:	9 months

Schematic of Study Design:



1 Introduction

1.1 Background Information

The myelodysplastic syndromes (MDS) are clonal blood cancers characterized by ineffective blood cell maturation, peripheral blood cytopenias, and risk of progression to acute myeloid leukemia (AML). Effective treatments for MDS are lacking, and the overall prognosis is poor. Every year there are ~15,000-20,000 new cases of MDS in the US, with an incidence that increases very significantly after age 65 [1]. A TriNetX database query shows that at least 275 patients with MDS were seen in the Jefferson Health Network in the past 12 months. The SKCC has identified MDS as a catchment area priority and an enterprise-wide effort is underway to harmonize care and increase access to high impact clinical trials.

The majority of patients with MDS are anemic at diagnosis and become dependent on red blood cell (RBC) transfusions to maintain the hemoglobin at a level that is adequate for oxygen delivery[2]. Frequent RBC transfusions are associated with iron overload, transfusion reactions, alloantibody development, infection, and decreased healthcare related quality of life (HRQoL) [3-5]. In addition, RBC transfusions significantly increase the cost of care, with one study estimating a >$30,000 increase in annual cost for MDS patients who are RBC transfusion-dependent compared to those who are not [6-8].

The decision to transfuse RBCs in a patient with MDS is often guided by pre-determined hemoglobin threshold levels and modified based on patient symptoms and comorbidities [4]. However, data to support these threshold levels in MDS are scarce. In addition, neither the objective clinical benefit nor the patient-reported symptom improvement associated with transfusion practices based on these hemoglobin threshold levels have been well described. Patient reported outcome (PRO) measures for anemia, such as The Functional Assessment of Cancer Therapy-Anemia (FACT-An), exist, but have not been widely adopted in the care of transfusion dependent patients with MDS[9]. Therefore, the development of a reliable composite decision support tool that includes objective measurements of patient activity, hemoglobin levels, and PRO to guide RBC transfusion practices in patients with MDS would represent a significant advancement.

1.2 Rationale for the Proposed Study

Wearable activity trackers, such as Fitbit, Apple Watch, and Garmin, have gained mainstream popularity and are capable of collecting physiologic data like step count and heart rate. Incorporating activity tracker data into oncology clinical trials has been shown to be feasible (measured by device compliance), well tolerated (based on patient survey data), and effective in providing detailed information about patient activity patients with breast, prostate, or endometrial cancer [10-13]. However, published studies of activity tracker monitoring in MDS patients are lacking.

The primary objective of this pilot study is to test the feasibility and acceptability of using a wearable activity tracker to monitor transfusion dependent MDS patients seen in the SKCC Leukemia/MDS clinic in Center City Philadelphia. In addition, we will generate preliminary data regarding daily step count, average daily resting heart rate, anemia related symptoms, and hemoglobin level. The hypothesis of this study is that patients will be able to comply with device utilization and will find this technology to be an acceptable addition to their care. Ultimately, our goal is to utilize activity tracker data, either alone or in combination with hemoglobin level and/or FACT-An score, to develop a more personalized approach for RBC transfusion in patients with MDS.

1.3 Potential Risks and Benefits

1.3.1 Potential Risks

The potential risks associated with this study are minimal.

1.3.2 Benefits

The benefits of this research study include the acquisition of knowledge about the feasibility of activity tracker use in MDS patients and the correlation between activity level and anemia. Participants will also benefit from the receipt of an activity tracker that they will be able to keep after the study concludes. Although study participants cannot be guaranteed that they will further benefit from the study, the information gained may benefit cancer patients in the future.

Study Objectives

1.4 Objectives

1.4.1 Primary

- To assess the feasibility and patient acceptability of using a Fitbit to monitor daily step count and heart rate.

1.4.2 Secondary

- To graph changes in daily step count, average daily resting heart rate, Fact-An score (assessed twice a week), and hemoglobin level.

1.5 Endpoints/Outcome Measures

1.5.1 Primary

- Feasibility will be measured by accrual rate, compliance with the device (80% of the 90-day intervention time), and retention rate.

- Acceptability will be measured by a short survey and interview addressing participant satisfaction.

1.5.2 Secondary

- Daily step count
- Average daily resting heart rate
- Fact-An score (assessed twice a week)
- Hemoglobin level measured by CBC twice a week

2 Study Design

This is a single arm, prospective, observational pilot study that will collecting data on daily step count, heart rate, and anemia related symptoms. The study population will include RBC transfusion dependent MDS patients who are ambulatory and in the outpatient setting. Patients will be given a wearable activity monitor and instructed to wear it continuously for 90 days. Baseline FACT-An questionnaire will be obtained to assess anemia related symptom data. Patients will have their CBC checked two times weekly and a FACT-An questionnaire will be administered twice a week (either on paper or electronically, based on patient preference). Activity data will be automatically collected from the Fitbit and stored using a centralized data aggregation platform. We will aim to collect data on 21 patients, with an estimated enrollment period of 9 months.

3 Study Enrollment and Withdrawal

3.1 Eligibility Criteria

3.1.1 Inclusion Criteria

Individuals must meet all of the following inclusion criteria in order to be eligible to participate in the study:

- Confirmed pathologic diagnosis of MDS
- Requiring ≥2 blood transfusions in the past month if previously diagnosed or hemoglobin ≤8g/dL if newly diagnosed
- Age ≥ 18
- ECOG performance status of 0 to 2
- Ambulatory (use of a walking aid, such as a cane or rollator, is acceptable)
- Able to give informed consent
- Willing to comply with all study procedures and available for the duration of the study
- Able to read and/or understand English

- Have access to an iPhone 4S or later, iPad 3 generation or later, Android 5.0 or later, or Windows 10 device.
- Have access to Bluetooth LE and internet connection for syncing.

3.1.2 Exclusion Criteria

An individual who meets any of the following criteria will be excluded from participation in this study:

- Uncontrolled illness including, but not limited to, symptomatic congestive heart failure, unstable angina pectoris, cardiac arrhythmia, or psychiatric illness/social situations that would limit compliance with study requirements

3.2 Strategies for Recruitment and Retention

Participants will be recruited from the Department of Medical Oncology- Jefferson Health. Advertisements will not be used to recruit patients for this study other than the Jefferson website. Patients who meet eligibility criteria will be invited by their physician to participate in the study. The study will be discussed with the patient and the patient's questions will be answered to the patient's satisfaction. Patients will be asked to read and comment/ask questions about the study and then sign the informed consent form before any study procedures take place.

3.3 Participant Withdrawal

3.3.1 Reasons for Withdrawal

Participants are free to withdraw from participation in the study at any time upon request or dropped from the trial at the discretion of the investigator.

An investigator may terminate a study participant's participation in the study if:

- The subject withdraws consent.
- Investigator's decision to withdraw the subject.
- Noncompliance with trial procedure requirements.
- Administrative reasons
- Any clinical adverse event (AE), laboratory abnormality, or other medical condition or situation occurs such that continued participation in the study would not be in the best interest of the participant.
- The participant meets an exclusion criterion (either newly developed or not previously recognized) that precludes further study participation.

3.3.2 Handling of Participant Withdrawals and Participant Discontinuation of Study Intervention

Replacement of participants who withdraw or discontinue early in the study will be allowed.

3.4 Premature Termination or Suspension of Study

This study may be suspended or prematurely terminated if there is sufficient reasonable cause. Written notification documenting the reason for study suspension or termination will be provided by the suspending or terminating party to the funding sponsor. If the study is prematurely terminated or suspended, the principal investigator will promptly inform the IRB and will provide the reason(s) for the termination or suspension.

Circumstances that may warrant termination include, but are not limited to:

- Determination of unexpected, significant, or unacceptable risk to participants.
- Insufficient adherence to protocol requirements.
- Data that is not sufficiently complete and/or evaluable.

4 Study Intervention

4.1 Study Product

Fitbit Inspire HR

4.2 Study Product Description

The Fitbit Inspire HR is a band based fitness tracker with a 0.8 inch monochrome, OLED, touchscreen display. The battery life is approximately 5 days. It has the following sensors: 3-axis accelerometer, optical heart rate monitor, vibration monitor. It includes inactivity alerts. Its dimensions are 1.5 inches x 0.6 inches. The Fitbit is not intended to be used as a medical device.

The Fitbit Inspire HR syncs automatically an wirelessly to 200+ leading iOS, Android, and Windows 10 devices using Bluetooth LE wireless technology. It syncs with iPhone 4S and later, iPad 3 generation and later, Android 5.0 and later, and Windows 10 devices. Syncing requires Bluetooth LE and internet connection.

4.2.1 Acquisition

The study product will be acquired directly from the manufacturer.

4.3 Study Product Accountability

The study product will be distributed to patients who meet the inclusion/exclusion criteria after enrollment. Each participant will receive one wearable device that will be paired with a centralized data aggregation platform to automatically collect and store data. After completion of the study, participants will be able to keep the wearable device they used in the study.

4.4 Assessing Participant Compliance with Study Product Administration

Compliance with the wearable device will be assessed at each outpatient visit and using the centralized data aggregation platform.

4.5 Concomitant Medications/Treatments

There are no restrictions on concomitant medications/treatments.

4.6 Dietary Restrictions

There are no dietary restrictions for participants during the trial.

5 Study Schedule

5.1 Screening

Screening Visit (can occur up to 28 days prior to enrollment or on the same day as enrollment)

The scope of the study will be explained to the patient prior to any screening during the informed consent. Patients should be asked to sign and date a Notice of Privacy Practice research authorization/HIPAA form and an IRB-approved statement of informed consent that meets the requirements of the Code of Federal Regulations (Federal Register Vol. 46, No. 17, January 27, 1981, part 50). During the screening period, subject eligibility will be determined according to the inclusion and exclusion criteria. The following assessments will be performed during this time:

- Review medical history to determine eligibility based on exclusion/inclusion criteria.
- Obtain informed consent from the potential participant.
- Perform medical examination needed to determine eligibility
- Record any current medications
- Assess ECOG performance status

5.2 Enrollment/Baseline

Enrollment/Baseline Visit

- Obtain/verify consent from participant on study consent form
- Verify inclusion/exclusion criteria
- Obtain demographic information, medical history, medication history, and social history
- Perform and record physical examination
- Assess ECOG Performance Status
- Provide patient with Fitbit Inspire HR wearable activity monitoring device with instruction on proper usage/operation.
- Ensure proper pairing and functionality with centralized data aggregation platform
- Assess baseline anemia-related symptoms using FACT-An questionnaire.
- Check baseline CBC

5.3 Treatment Period

Two times per week

- Check CBC
- Administer Fact-An

Office visits per standard of care (to be determined by the patient's physician)

- Record results of physical examination, vital signs
- Assess any new medications
- Assess ECOG performance status
- Record participant's compliance with wearing Fitbit Inspire HR device

5.4 End of Treatment Study Procedures

Final Study Visit (Day 90)

- Record results of physical examination, vital signs
- Assess ECOG performance status

- Record participant's compliance with wearing Fitbit Inspire HR device
- Provide final instructions to participant

5.5 Withdrawal Visit/Discontinuation of Therapy

No end of study procedures will be required if a patient withdraws or participation is terminated early.

6 Study Procedures and Evaluations

6.1 Study Procedures/Evaluations

The patient's medical history will be obtained from the patient and his/her medical records. A complete list of current prescription medications will be obtained. A complete physical examination including vital signs (blood pressure, heart rate, respiratory rate, pulse oximetry, temperature) will be assessed. A CBC to assess hemoglobin will be collected twice per week during the enrollment period. The CBC can be collected at TJUH or any other laboratory (Quest, LabCorp, or others). If the CBC is collected outside of TJUH, results will be obtained from the outside lab. Office visits will be scheduled per standard of care practices at the treating physician's discretion. The decision to transfuse blood will be made by the treating physician per standard of care practice. A FACT-An questionnaire will be used to assess anemia related symptoms and quality of life twice a week. The Fact-An will be completed either on paper or electronically (based on participant preference). The Fitbit device will capture daily step count and heart rate and the information will be stored in a centralized data aggregation platform.

6.2 Laboratory Procedures/Evaluations

6.2.1 Clinical Laboratory Evaluations

A CBC to assess hemoglobin will be collected twice per week during the enrollment period. The CBC can be collected at TJUH or any other laboratory (Quest, LabCorp, or others). If the CBC is collected outside of TJUH, results will be obtained from the outside lab either electronically or on paper.

7 Evaluation of Safety

7.1 Specification of Safety Parameters

7.1.1 Unanticipated Problems

Unanticipated problems (UAPs) include, in general, any incident, experience, or outcome that meets the following criteria:

- unexpected in terms of nature, severity, or frequency given (a) the research procedures that are described in the protocol-related documents, such as the IRB-approved research protocol and informed consent document; and (b) the characteristics of the participant population being studied;

UAPs are considered to pose risk to participants or others when they suggest that the research places participants or others at a greater risk of harm (including physical, psychological, economic, or social harm) than was previously known or recognized.

7.2 Safety Reporting

7.2.1 Reporting to IRB

7.2.1.1 Unanticipated Problems

All incidents or events that meet criteria for unanticipated problems (UAPs) as defined in Section 7.1.1 Unanticipated Problems require the creation and completion of an unanticipated problem report form (OHR-20).

UAPs that pose risk to participants or others, and that are not AEs, will be submitted to the IRB on an OHR-20 form via the eazUP system within 10 working days of the investigator becoming aware of the event.

UAPs that do not pose risk to participants or others will be submitted to the IRB at the next continuing review.

8 Study Oversight

The study PI is responsible for the study oversight. The PI will ensure that the rights of human participants are protected, that the study is implemented in accordance with the protocol and/or other operating procedures, and that the quality and integrity of study data and data collection methods are maintained.

9 Statistical Considerations

9.1 Analysis Plans

Primary Analysis: The first aim of this study is to assess the feasibility of activity monitoring. This will be defined as usage of the Fitbit device for at least 80% of the 90 days under observation. The overall study period compliance rate along with a one-sided exact 95% confidence interval will be estimated. The device will be considered to have acceptable feasibility if the lower bound of the CI is above 0.6 or, equivalently, if at least 17/21 (81%) of participants are compliant for at least 70% of the days under observation.

Accrual rate and retention rate for the study will also be calculated.

Quantitatively, participants will complete the Client Satisfaction Quesionnaire-8 item version (CSQ-8), a validated measure that elicits the client's perspective on the value of services received[32]. Qualitatively, we will interview each participant at the end of their 90-day participation to understand their perceived barriers and facilitators of using Fitbit in their daily activities and elicit their feedback to refine future study design. Interviews will be digitally audio-recorded and transcribed verbatim. Transcripts will be analyzed with a pre-defined code book to summarize participant's experience and comments.
Exploratory Analyses: Descriptive statistics will be used to outline patient characteristics and report Fact-An results. We will plot daily step count, average daily resting heart rate, hemoglobin levels, and Fact-An scores. We will use multivariate analyses to identify relationships between these variables and to determine if pre-transfusion step count and/or heart rate predict post-transfusion FACT-An results.

9.2 Sample Size Considerations

A sample size of 21 patients provides 80% power to reject the null hypotheses that the true compliance rate is less than or equal to 60% using a one-sided exact binomial tests of size 0.05 assuming the true rate is 85% or greater.

10 Source Documents and Access to Source Data/Documents

Study staff will maintain appropriate medical and research records for this study, in compliance with ICH E6, and regulatory and institutional requirements for the protection of confidentiality of participant information. Study staff will permit authorized

representatives of SKCC and regulatory agencies to examine (and when required by applicable law, to copy) research records for the purposes of quality assurance reviews, audits, and evaluation of the study safety, progress and data validity.

11 Quality Control and Quality Assurance

Data obtained regarding activity level and compliance of study participants as measured by the wearable device stored in our central data aggregation platform will be correlated with hemoglobin level and FACT-An questionnaire results. Documents to be reviewed to obtain this data include clinic notes, FACT-An questionnaire results, CBC results, and activity logs from our central data platform on a weekly basis by members of investigational team. Data will be evaluated in compliance with our protocol. Quality assurance and quality control issues will be addressed by the principal investigator.

12 Ethics/Protection of Human Participants

12.1 Ethical Standard

The investigator will ensure that this study is conducted in full conformity with the principles set forth in The Belmont Report: Ethical Principles and Guidelines for the Protection of Human Subjects of Research, as drafted by the US National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research (April 18, 1979) and codified in 45 CFR Part 46 and/or the ICH E6.

12.2 Institutional Review Board

The protocol, informed consent form(s), recruitment materials, and all participant materials will be submitted to the IRB for review and approval. Approval of both the protocol and the consent form must be obtained before any participant is enrolled. Any amendment to the protocol will require review and approval by the IRB before the changes are implemented in the study.

12.3 Informed Consent Process

Informed consent is a process that is initiated prior to the individual agreeing to participate in the study and continues throughout study participation. Extensive discussion of risks and possible benefits of study participation will be provided to participants and their families, if applicable. A consent form describing in detail the study procedures and risks will be given to the participant. Consent forms will be IRB-approved, and the participant is required to read and review the document or have the document read to him or her. The investigator or designee will explain the research study to the participant and answer any questions that may arise. The participant will sign the informed consent document prior to any study-related assessments or procedures. Participants will be given the opportunity to discuss the study with their surrogates or think about it prior to agreeing to participate. They may withdraw consent at any time throughout the course of the study. A copy of the signed informed consent document will be given to participants for their records. The rights and welfare of the

participants will be protected by emphasizing to them that the quality of their clinical care will not be adversely affected if they decline to participate in this study. The consent process will be documented in the clinical or research record.

12.4 Exclusion of Women, Minorities, and Children (Special Populations)

Individuals must be ≥ 18 years of age to participate in the study. Individuals of any gender or racial/ethnic group may participate.

12.5 Participant Confidentiality

Participant confidentiality is strictly held in trust by the investigators, study staff, and the sponsor(s) and their agents. This confidentiality is extended to cover testing of biological samples and genetic tests in addition to any study information relating to participants.

The study protocol, documentation, data, and all other information generated will be held in strict confidence. No information concerning the study or the data will be released to any unauthorized third party without prior written approval of the sponsor.

The study monitor or other authorized representatives of the sponsor may inspect all study documents and records required to be maintained by the investigator, including but not limited to, medical records (office, clinic, or hospital) for the study participants. The clinical study site will permit access to such records.

13 Data Handling and Record Keeping

The investigators are responsible for ensuring the accuracy, completeness, legibility, and timeliness of the data reported. All source documents must be completed in a neat, legible manner to ensure accurate interpretation of data. The investigators will maintain adequate case histories of study participants, and source documentation.

13.1 Data Management Responsibilities

Data collection and accurate documentation are the responsibility of the study staff under the supervision of the investigator. All source documents and laboratory reports must be reviewed by the study team and data entry staff, who will ensure that they are accurate and complete. Unanticipated problems and adverse events must be reviewed by the investigator or designee.

The study protocol, documentation, data, and all other information generated will be held in strict confidence. No information concerning the study or the data will be released to any unauthorized third party without prior written approval of the sponsor.

Each participant will be assigned a unique identification number (ID) and this ID number will be the only identifying information on data form. A list linking ID numbers to names will be kept in a password-protected computer file accessible only to project staff.

13.2 Data Capture Methods

Data will be captured in multiple forms. Daily step count, compliance, and heart rate will be collected in an electronic format in a centralized data aggregation platform that is password protected. Data on hemoglobin and medical history will be collected from the electronic or paper medical record and transferred to an electronic database that is password protected. FACT-An questionnaire results will be obtained verbally via telephone and entered directly into the RedCap database. All data will be collected in an ongoing manner during the duration of the study.

13.3 Types of Data

Types of data that will be collected include: laboratory (hemoglobin), transfusion date, number of units of blood transfused, outcome measure data (FACT-An questionnaire, daily step count, average daily resting heart rate, and compliance with wearable device). Reports to monitor enrollment will occur on an ongoing biweekly basis by the study team. Plans for data analysis and interim and final study reports will occur immediately after completion of data collection.

13.4 Study Records Retention

Study documents will be retained for a minimum of 2 years. These documents should be retained for a longer period, however, if required by local regulations.

13.5 Protocol Deviations

A protocol deviation is any noncompliance with the clinical study protocol, Good Clinical Practice, or Manual of Procedures requirements. The noncompliance may be on the part of the participant, the investigator, or study staff. As a result of deviations, corrective actions are to be developed by the study staff and implemented promptly.

All deviations from the protocol must be addressed in study participant source documents and promptly reported to the IRB and other regulatory bodies according to their requirements.

14 Study Finances

14.1 Funding Source

This study will be financed through the sponsorship of the Sidney Kimmel Cancer Center of TJUH.

14.2 Conflict of Interest

Any investigator who has a conflict of interest with this study (patent ownership, royalties, or financial gain greater than the minimum allowable by their institution, etc.) must have the conflict reviewed by a properly constituted Conflict of Interest Committee with a Committee-sanctioned conflict management plan that has been reviewed and approved by the study sponsor prior to participation in this study. All Jefferson University Investigators will follow the TJU Conflicts of Interest Policy for Employees (107.03).

14.3 Participant Stipends or Payments

Participants will be able to keep the Fitbit wearable device they used for the study after completion of observation. They will also receive $40 via ClinCard as incentive for completing surveys.

15 Publication and Data Sharing Policy

This study will comply with the NIH Public Access Policy, which ensures that the public has access to the published results of NIH funded research. It requires scientists to submit final peer-reviewed journal manuscripts that arise from NIH funds to the digital archive PubMed Central upon acceptance for publication.

The International Committee of Medical Journal Editors (ICMJE) member journals have adopted a clinical trials registration policy as a condition for publication. The ICMJE defines a clinical trial as any research project that prospectively assigns human participants to intervention or concurrent comparison or control groups to study the cause-and-effect relationship between a medical intervention and a health outcome. Medical interventions include drugs, surgical procedures, devices, behavioral treatments, process-of-care changes, and the like. Health outcomes include any biomedical or health-related measures obtained in patients or participants, including pharmacokinetic measures and adverse events. The ICMJE policy requires that all clinical trials be registered in a public trials registry such as ClinicalTrials.gov, which is sponsored by the National Library of Medicine. Other biomedical journals are considering adopting similar policies. The ICMJE does not review specific studies to determine whether registration is necessary; instead, the committee recommends that researchers who have questions about the need to register err on the side of registration or consult the editorial office of the journal in which they wish to publish.

U.S. Public Law 110-85 (Food and Drug Administration Amendments Act of 2007 or FDAAA), Title VIII, Section 801 mandates that a "responsible party" (i.e., the sponsor or designated principal investigator) register and report results of certain "applicable clinical trials."

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Appendices

The following documents are officially affiliated with the protocol and will be submitted to the IRB as a part of the protocol. As such, changes to these items require a protocol amendment.

Appendix A: Schedule of Events

APPENDIX A: SCHEDULE OF EVENTS

Procedures		Screening[2]	Enrollment/Baseline (Day 1)	Subsequent Office Visits	Twice a Week During Study Period[3]	Study Completion
Informed Consent		X				
Assessment of Eligibility Criteria		X	X	X		
Review of Medical History		X	X	X		X
Review of Medications		X	X	X		X
Document ECOG Performance Status		X	X			X
Administer Fact-An Questionnaire[4]			X		X	
Physical Examination	Complete	X				
	Symptom-Directed		X			X
	Vital Signs		X			X
Labs	Hematology[1]	X	X		X	

1. CBC or CBC with differential
2. Screening may occur within the 28 days prior to enrollment or concurrently with the enrollment visit.
3. CBC and Fact-An do not have to be completed on the same days
4. Administered via telephone by study personnel

APPENDIX B: FACT-An Questionnaire

Below is a list of statements that other people with your illness have said are important**. Please circle or mark one number per line to indicate your response as it applies to the <u>past 7 days</u>.**

	<u>PHYSICAL WELL-BEING</u>	**Not at all**	**A little bit**	**Some-what**	**Quite a bit**	**Very much**
GP1	I have a lack of energy	0	1	2	3	4
GP2	I have nausea	0	1	2	3	4
GP3	Because of my physical condition, I have trouble meeting the needs of my family	0	1	2	3	4
GP4	I have pain	0	1	2	3	4
GP5	I am bothered by side effects of treatment	0	1	2	3	4
GP6	I feel ill	0	1	2	3	4
GP7	I am forced to spend time in bed	0	1	2	3	4

	<u>SOCIAL/FAMILY WELL-BEING</u>	**Not at all**	**A little bit**	**Some-what**	**Quite a bit**	**Very much**
GS1	I feel close to my friends	0	1	2	3	4
GS2	I get emotional support from my family	0	1	2	3	4
GS3	I get support from my friends	0	1	2	3	4
GS4	My family has accepted my illness	0	1	2	3	4
GS5	I am satisfied with family communication about my illness	0	1	2	3	4
GS6	I feel close to my partner (or the person who is my main support)	0	1	2	3	4
Q1	*Regardless of your current level of sexual activity, please answer the following question. If you prefer not to answer it, please mark this box* ☐ *and go to the next section.*					
GS7	I am satisfied with my sex life	0	1	2	3	4

Please circle or mark one number per line to indicate your response as it applies to the <u>past 7 days</u>.

	EMOTIONAL WELL-BEING	**Not at all**	**A little bit**	**Some-what**	**Quite a bit**	**Very much**
GE1	I feel sad	0	1	2	3	4
GE2	I am satisfied with how I am coping with my illness	0	1	2	3	4
GE3	I am losing hope in the fight against my illness	0	1	2	3	4
GE4	I feel nervous	0	1	2	3	4
GE5	I worry about dying	0	1	2	3	4
GE6	I worry that my condition will get worse	0	1	2	3	4

	FUNCTIONAL WELL-BEING	**Not at all**	**A little bit**	**Some-what**	**Quite a bit**	**Very much**
GF1	I am able to work (include work at home)	0	1	2	3	4
GF2	My work (include work at home) is fulfilling	0	1	2	3	4
GF3	I am able to enjoy life	0	1	2	3	4
GF4	I have accepted my illness	0	1	2	3	4
GF5	I am sleeping well	0	1	2	3	4
GF6	I am enjoying the things I usually do for fun	0	1	2	3	4
GF7	I am content with the quality of my life right now	0	1	2	3	4

Please circle or mark one number per line to indicate your response as it applies to the <u>past 7 days</u>.

	ADDITIONAL CONCERNS	**Not at all**	**A little bit**	**Some-what**	**Quite a bit**	**Very much**
HI7	I feel fatigued	0	1	2	3	4
HI12	I feel weak all over	0	1	2	3	4
An1	I feel listless (“washed out”)	0	1	2	3	4
An2	I feel tired	0	1	2	3	4
An3	I have trouble <u>starting</u> things because I am tired	0	1	2	3	4
An4	I have trouble <u>finishing</u> things because I am tired	0	1	2	3	4
An5	I have energy	0	1	2	3	4
An6	I have trouble walking	0	1	2	3	4
An7	I am able to do my usual activities	0	1	2	3	4
An8	I need to sleep during the day	0	1	2	3	4
An9	I feel lightheaded (dizzy)	0	1	2	3	4
An10	I get headaches	0	1	2	3	4
B1	I have been short of breath	0	1	2	3	4
An11	I have pain in my chest	0	1	2	3	4
An12	I am too tired to eat	0	1	2	3	4
BL4	I am interested in sex	0	1	2	3	4
An13	I am motivated to do my usual activities	0	1	2	3	4
An14	I need help doing my usual activities	0	1	2	3	4
An15	I am frustrated by being too tired to do the things I want to do	0	1	2	3	4
An16	I have to limit my social activity because I am tired	0	1	2	3	4