3. Selection of Patients

Each of the criteria in the checklist that follows must be met in order for a patient to be considered eligible for this study. Use the checklist to confirm a patient's eligibility. For each patient, this checklist must be photocopied, completed and maintained in the patient's chart.

In calculating days of tests and measurements, the day a test or measurement is done is considered Day 0. Therefore, if a test is done on a Monday, the Monday four weeks later would be considered Day 28.

ECOG-ACRIN Patient No. _____

Patient's Initials (L, F, M) _

Physician Signature and Date _____

NOTE: CTEP Policy does not allow for the issuance of waivers to any protocol specified criteria (http://ctep.cancer.gov/protocolDevelopment/policies_deviations.htm). Therefore, all eligibility criteria listed in Section 3 must be met, without exception. The registration of individuals who do not meet all criteria listed in Section 3 can result in the participant being censored from the analysis of the study, and the citation of a major protocol violation during an audit. All questions regarding clarification of eligibility criteria must be directed to the Group's Executive Officer (EA.ExecOfficer@jimmy.harvard.edu) or the Group's Regulatory Officer (EA.RegOfficer@jimmy.harvard.edu).

NOTE: Institutions may use the eligibility checklist as source documentation if it has been reviewed, signed, and dated prior to registration/randomization by the treating physician.

NOTE: This study involves preregistration and randomization (see Section 4).

NOTE: If Decipher score was previously performed by Decipher Biosciences and the score is > 0.6, eligible patients may proceed from Step 0 Preregistration directly to Step 1 Randomization after entering results and uploading Decipher score report to Medidata Rave. Step 0 Preregistration cannot be bypassed.

If Decipher score was not previously performed by Decipher Biosciences, tumor tissue must be available for submission for Decipher score assay and results determined prior to proceeding to Step 1 Randomization. See Section 10 for submission of forms and specimens associated with Decipher score status.

3.1 Eligibility Criteria for Preregistration (Step 0)

_____ 3.1.1 Patient must be ≥ 18 years of age.

_____ 3.1.2 Patient must have undergone a radical prostatectomy (RP) and must be preregistered to Step 0 of this study at least 6 weeks after but not more than 12 weeks after their radical prostatectomy.

_____ 3.1.3 Patient must not have any previous treatment with androgen deprivation therapy (ADT), chemotherapy, or other physician prescribed systemic therapy for treatment of their prostate cancer.

_____ 3.1.4 Patient must not have pathologic evidence of pelvic lymph node involvement.

_____3.1.5 Patient must have an ECOG performance status of 0-2.

_____3.1.6 Patient must not have an uncontrolled intercurrent illness including, but not limited to, ongoing or active infection, symptomatic congestive heart failure (New York Heart Association Class III and IV heart failure), unstable angina pectoris, cardiac arrhythmia, or psychiatric illness/social situations that would limit compliance with study requirements.

_____ 3.1.7 Patients with a prior or concurrent malignancy within 5 years of registration, whose natural history or treatment does not have the potential to interfere with the safety or efficacy assessment of the investigational regimen are eligible for this trial.

_____3.1.8 Human immunodeficiency virus (HIV)-infected patients on effective anti-retroviral therapy with undetectable viral load within 6 months are eligible for this trial.

_____3.1.9 For patients with evidence of chronic hepatitis B virus (HBV) infection, the HBV viral load must be undetectable on suppressive therapy, if indicated.

_____3.1.10 Patients with a history of hepatitis C virus (HCV) infection must have been treated and cured. For patients with HCV infection who are currently on treatment, they are eligible if they have an undetectable HCV viral load.

_____ 3.1.11 For patients with no previous Decipher score: Tumor tissue specimen from radical prostatectomy must be available and ready to be shipped within 20 weeks post-surgery as outlined in Section 10.

Decipher Biosciences will notify submitting institution of Decipher score results within 21 days of receipt of tumor tissue specimen.

NOTE: Every effort should be made to submit tumor tissue specimen to Decipher Biosciences immediately.

3.2 Eligibility Criteria for Randomization (Step 1)

_____3.2.1 Patients must be randomized within 24 weeks from surgery.

_____ 3.2.2 For patients who have previously had Decipher score performed by Decipher Biosciences, they must have a score of > 0.6.

_____ 3.2.3 For patients who did not have a Decipher score previously performed by Decipher Biosciences, they must have had a Decipher score of > 0.6 assessed from the prostatectomy specimen submitted as per Section 10.

_____3.2.4 For patients who did not have a Decipher score previously performed by Decipher Biosciences, they must also have a CAPRA-S score ≥ 3. The CAPRA-S score is calculated by assigning points for PSA in ng/mL, surgical margin status, seminal vesicle invasion, and extra-capsular extension (See Appendix V). Lymph node involvement will serve as an exclusion criteria and will not count towards CAPRA-S

inclusion score. A CAPRA-S score is not required for patients who had a Decipher score previously performed by Decipher Biosciences.

_____ 3.2.5 Patient must have an undetectable PSA (< 0.2ng/mL) obtained within 2 weeks prior to randomization.

_____ 3.2.6 Patient must not have pre or post-operative radiographic evidence of cancer recurrence or metastasis by abdominal and pelvic imaging (CT abdomen/pelvis, whole body MRI, MRI abdomen/pelvis, or equivalent, AND bone scan) which must be done before or after prostatectomy and within 24 weeks prior to randomization. If pre-operative risk does not indicate a need for bone scan, post-operative Decipher score of > 0.6 indicates increased risk of metastatic disease and may be used to obtain CT abdomen/pelvis and bone scan prior to randomization.

_____ 3.2.7 Due to the potential harm through seminal transfer to an unborn fetus with the treatment regimens being used, sexually active males must not expect to father children by using accepted and effective method(s) of contraception or by abstaining from sexual intercourse for the duration of their participation in the study and for 28 days after the last dose of protocol treatment.

_____ 3.2.8 Patient must have adequate organ and marrow function as defined below, obtained within 4 weeks prior to randomization.

_____ Leukocytes ≥ 3,000/mcL

Leukocytes:_____ Date of Test:_____

_____ Absolute neutrophil count ≥ 1,000/mcL

ANC:_____ Date of Test:_____

_____ Platelets ≥ 75,000/mcL

Platelet:_____ Date of Test:_____

_____ Total bilirubin ≤ institutional upper limit of normal (ULN)

Total Bilirubin:_____ Institutional ULN:_____

Date of Test:_____

_____ AST(SGOT)/ALT(SGPT) ≤ 2.5 × institutional ULN

ALT:_____ Institutional ULN:_____

Date of Test:_____

AST:_____ Institutional ULN:_____

Date of Test:_____

_____ GFR ≥ 30 mL/min/1.73 m2

Date of Test:_____

GFR:_____

_____ _____

Physician Signature Date

OPTIONAL: This signature line is provided for use by institutions wishing to use the eligibility checklist as source documentation.

7.0 Study Parameters

7.1 Therapeutic Parameters

1. Prestudy scans used to assess all sites of disease must be done within 24 weeks prior to Step 1 Randomization.
2. Prestudy CBC (with differential and platelet count) should be done ≤ 4 weeks before Step 1 Randomization.
3. All required prestudy chemistries, as outlined in Section 3, should be done ≤ 4 weeks before Step 1 Randomization.

	Prior to Step 0 Preregistration	**Baseline (Prior to Step 1 Randomization)**	**At 6 weeks**	**Every 12 weeks (+/- 2 weeks) from baseline to 104 weeks**	**At 26, 52, 78 weeks (+/- 2 weeks)**	**At progression**	**Post 104 weeks to 15 years from study entry (once annually)[4]**
Informed Consent		X					
Physical Exam and ECOG performance status		X	X	X	X		
Concomitant medications		X	X	X	X		
PSA and Testosterone[1]		X	X	X	X	X	
CBC with differential, CMP[2]		X	X	X	X		
Pill Count/Diary				X	X		
Patient Reported Quality of Life Assessment[3]		X			X		
Toxicity assessment		X	X	X	X		
Survival status[4]							X
Decipher Score Assay[5]	X						
Biological Specimen Submissions[8]	See Section 10						
Tumor Tissue	X[6]	X[7]					
Peripheral Blood (one 10mL EDTA purple top tube)[7]		X		X[9]		X	
Peripheral Blood (one 10mL SST red top tube)[7]		X		X[9]		X	
CT/ MRI Scans of the Pelvis and bone scan[11]		X[10]					X

1. Baseline PSA assessment must be done within 2 weeks prior to Step 1 Randomization.

2. CBCs (with differential and platelet count) which includes WBC, ANC, Platelets, Hgb, and Hct. CMPs (with sodium, potassium, chloride,CO2, BUN, creatinine, alkaline phosphatase, ALT, AST, total bilirubin, albumin, calcium).
3. Patient reported quality of life assessment includes FACT-P, FACT-Cog, and FACIT-Fatigue patient reported outcome measures.
4. Every 3 months if patient is < 2 years from study entry, every 6 months if patient is 2-5 years from study entry, every 12 months if patient is 5-10 years from study entry. Once annually by telephone if patient is > 10 years from study entry. No specific requirements if patient is more than 15 years from study entry.
5. Decipher score assay previously performed by Decipher Biosciences (see Sections 4 and 10). Enter assay results and upload report to Medidata Rave and proceed to Step 1 Randomization.
6. MANDATORY from patients with no Decipher score determined prior to Step 0 Preregistration. Tumor tissue specimen from radical prostatectomy must be submitted to Decipher Biosciences for testing within 20 weeks post-surgery. Kits will be provided for collection and shipment of tumor tissue specimens. See Section 10 for instructions.
7. Submit from patients who consent to future undefined research studies to the ECOG-ACRIN Central Biorepository and Pathology Facility.
8. All specimens submitted must be entered and tracked via the online ECOG-ACRIN Sample Tracking System (STS).
9. At time of best PSA response or three (3) months from initiation of therapy.
10. Follow-up imaging should occur as clinically indicated when triggered by an abnormal PSA (≥ 0.2 ng/mL). If no evidence of disease is identified on CT scans of the abdomen and pelvis (or equivalent, e.g., whole body MRI, MRI abdomen/pelvis) and chest imaging (CT chest or Chest X-Ray) and bone scan in the setting of a PSA ≥ 0.2 ng/mL. PET scans can also be used as a more sensitive method to detect disease recurrence when PSA is ≥ 0.2 ng/mL. Repeat CT scans of the abdomen and pelvis (or equivalent, e.g., whole body MRI, MRI abdomen/pelvis) and chest imaging (CT chest or Chest X-Ray) and bone scans should be repeated every 6 months after initial detection of PSA ≥ 0.2 ng/mL to detect radiographic evidence of disease and guide further treatment. Repeat PET scans can be performed as clinically indicated to guide further treatment.
11. Imaging can be pre- or post-operative but within 24 weeks prior to randomization, and should confirm absence of radiographic evidence of cancer recurrence or metastasis by abdominal and pelvic imaging (CT abdomen/pelvis, whole body MRI, MRI abdomen/pelvis, or equivalent, AND bone scan). If pre-operative risk does not indicate a need for bone scan, post-operative Decipher score of > 0.6 indicates increased risk of metastatic disease and may be used to obtain CT abdomen/pelvis and bone scan prior to randomization.