

## Urology Clinical and Translational Sciences (UCATS)

### UCSF UCATS Stats Group 2015

Example of a data analysis plan:

Da: *Date*  
To: *Coinvestigators, coauthors, senior author*  
Fr: *Investigator/first author*  
Re: *Title: Analysis Plan*

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#### Study questions

- *What are the predictors of negative repeat biopsies after active surveillance for prostate cancer?*

#### Patient cohort

- *Active surveillance*
- *Consented for research*
- *Diagnostic and at least 1 follow up biopsy*
- *Minimum 10 biopsy cores taken at diagnosis*
- *Etc*

#### Independent variables

- *Age at diagnosis*
- *Race and relationship status*
- *Gleason grade at diagnostic biopsy*
- *Number of cores taken at diagnostic biopsy*
- *Number and percent of cores positive at diagnostic biopsy*
- *Etc*

#### Dependent variables/outcomes

- *Increase in biopsy grade to at least 3+4*
- *Increase in volume to at least 34% positive cores or 51% positive in a single core*

*If AS+RP patients are included:*

- *Upgrade at surgpath from last repeat biopsy*
- *Upstage at surgpath from cT1/2 to pT3/4*
- *Any adverse pathology (pT3/pN1/positive margins)*

#### Time-to-event outcomes

- *Treatment free survival during AS for men with repeat biopsies*
- *Treatment free survival during AS for men with negative biopsies*
- *Biopsy progression-free survival*
- *Etc*

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#### Cox proportional hazards regression model

- Covariates: age, cT-stage, diagnostic PSA or PSAD, % positive cores, negative first repeat biopsy
- Outcome: biopsy progression

#### Logistic regression model

- Covariates: age, cT-stage, diagnostic PSA or PSAD, % positive cores, % positive tissue, biopsy GS
- Outcome: biopsy progression