Records identified (n = 4331)
- PubMed (n = 2087)
- Embase (n = 1092)
- Web of Science (n = 1090)
- Cochrane library (n = 62)

Additional records identified through manually reviewed (n = 4)

Duplicates removed (n = 902)

Records excluded (n = 3382)
- Review, letter, comment, lecture, case reports
- Not relevant based on title or abstract

Records screened (n = 3433)

Studies excluded (n = 8)
- Study populations overlapped (n = 1)
- Genetic variation analysis (n = 1)
- Outcome was all cause mortality (n = 1)
- Evaluated the association between aspirin use and cancer TNM characteristics (n = 1)
- Exposure was only acetaminophen (n = 2)
- Exposure was statin and NSAIDs use combined (n = 1)
- From secondary analysis or combined analysis of other cohort studies (n = 1)

Full text studies retrieved for detailed evaluation (n = 51)

Final inclusion for the meta-analysis of NSAIDs use and prostate cancer incidence risk (n = 31)
- Case control studies (n = 18)
- Cohort studies (n = 13)

Final inclusion for the meta-analysis of NSAIDs use and prostate cancer-specific mortality (n = 8)
- Case control studies (n = 2)
- Cohort studies (n = 6)