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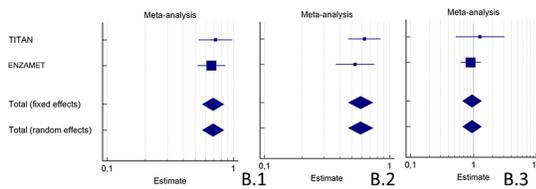
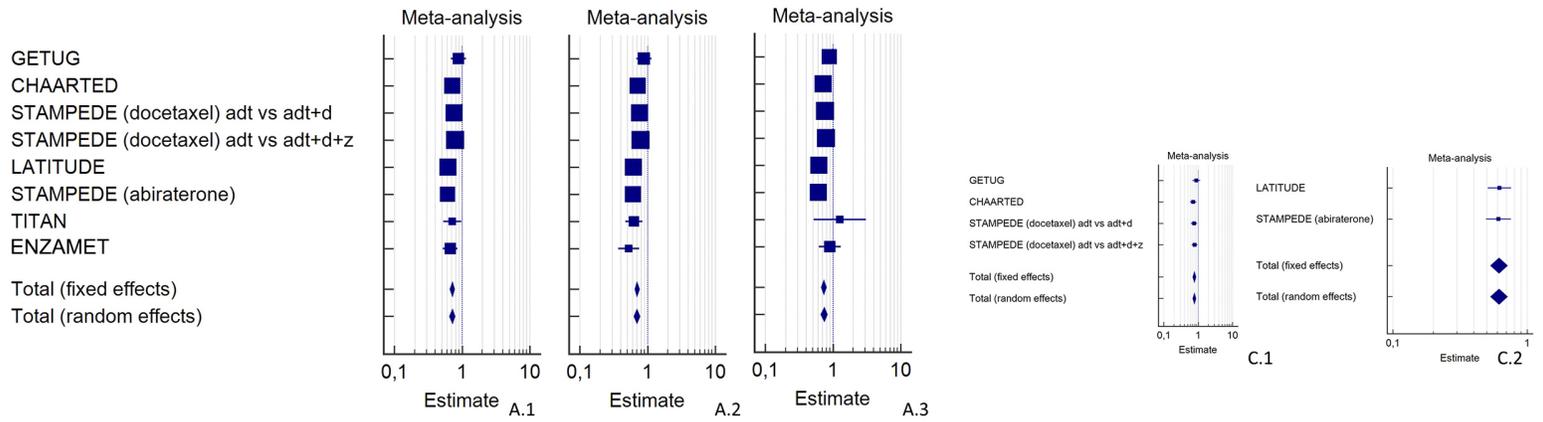
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Introduction & Objectives: Several systemic treatments are available for metastatic hormone sensitive prostate cancer (mHSPC) including docetaxel (D), Abiraterone and prednisone (A+P) and new-anti androgens (NA).

Our aim was to perform a systematic review and meta-analysis assessing efficacy outcomes (survival and radiological free survival), safety and survival on specific subgroup of patients.

Materials & Methods: Medline, Scopus, and abstract of international meeting were searched in June 2019. We pooled results expressed as Hazard Ratio (HR) or Relative Risk (RR) using the inverse variance technique and both random/fixed-effects models. Overall 8 randomized trials were included in meta-analysis for a total of 9987 patients.

Results: Administration of D, A+P and NA resulted in improved survival (HR 0.777, 95% CI 0.700-0.862, HR 0.615, 95% CI 0.532-0.712 and pooled fixed/random HR 0.587, 95% CI, 0.467-0.736, $p < 0.001$ respectively) and rPFS. Survival benefit was not confirmed in patients receiving NA and previously docetaxel exposed (pooled HR 0.948, 95% CI 0.671-1.338). Patients with visceral metastases and high LDH did not benefit from NA treatment while patients with low gleason score seem to do not benefit from A+P. Patients with age of 70 or more, high Gleason score at diagnosis, low volume metastatic disease and higher LDH serum levels seem to not benefit from D. Safety analysis revealed the well known hematological toxicity of D, cardio-vascular toxicity of A+P and prednisone and a low rate of adverse events in patients treated with enzalutamide/apalutamide.



Conclusions: NA do not lead to a survival benefit after D. Specific subgroup of patients may more benefit from A+P, D or NA. Safety profiles significantly differ among studies with NA associated to more favorable profile.

