

Peer Review File

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Reviewer A

The topic of this review is extremely interesting and despite the limitation of the type of review (narrative) I appreciate it.

Response: We appreciate very much this comment. We also believe that the work interest the readers of ATM.

Reviewer B

Alpha therapy is an additional tool in the treatment of mCRPC in addition to anti-androgen treatments, chemotherapy and 177Lu-PSMA.

In parallel with the use of 177Lu-PSMA, I agree with the authors that alpha therapy is a promising strategy for the future, alone or in combination, and that we are willing to develop this activity.

Nonetheless, these treatments should be reserved for hospitals with the logistical means to procure radioisotopes.

Response: We appreciate very much this comment and agree with it.

Formatting :

It should be noted that, in the version available, there are still numerous syntax errors (PSMA-617; PSMA617...), font mismatches (table 1) and some tables/figures are not legible (figure 4/table 2 and figure 5). This can make the manuscript difficult to read. Some abbreviations are not described in HSPC.

In addition, some statements are not referenced (Line 131).

Please note that, unless I'm mistaken, there is a mixture of all the refs at least in the salivary gland section.

Botulinum acid - ref 37 and not ref 36

Cold pack - ref 33?

The same references appear several ref 12 = ref 31.

Response: We have added the hyphens missing in a few “PSMA-617”. We have changed the font mismatches in Table 1 and Figures 4 & 5. We are sorry for this.

We have added a new reference on line 131 (this was missing). We also agree that old refs 12 & 31 were the same. We have changed the old ref 31 with a new one. This also changes the reference numbering which has been changed. All the reference changes have been highlighted (with yellow color). There was a minor discrepancy in the salivary gland section which has been corrected now. Two missing abbreviations have been added, HPSC and ADT.

This review summarizes the key elements of the two most advanced vectors, PSMA-617 and PSMA I&T.

From my point of view, Ac225 also appears to be one of the most promising alpha emitters.

This is a summary of the results of existing bibliography showing the efficacy and limitations in terms of side effects.

I have no further comments.