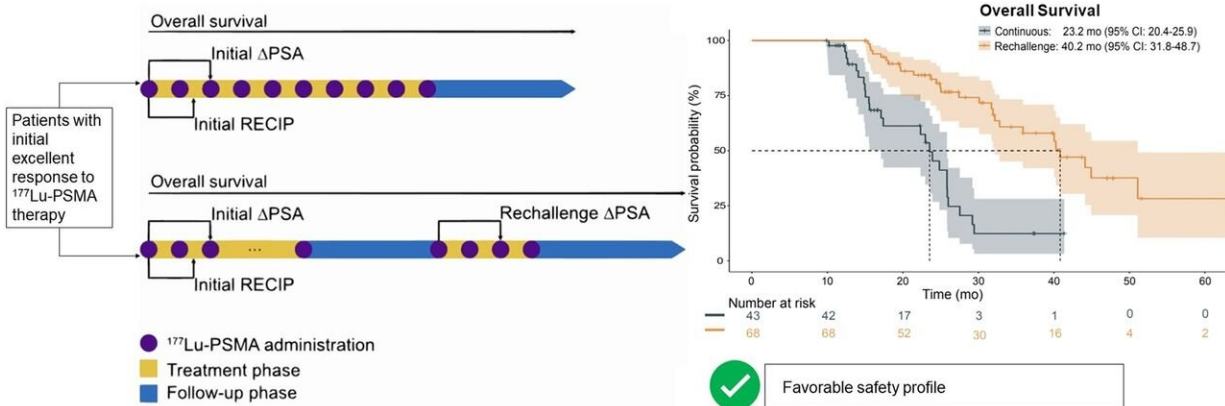


Extended PSMA therapy safe and effective for prostate cancer patients, research finds

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Credit: *Journal of Nuclear Medicine* (2024). DOI: 10.2967/jnumed.123.267321

Extended prostate-specific membrane antigen (PSMA)-targeted radiopharmaceutical therapy (¹⁷⁷Lu-PSMA) beyond six cycles is an effective and well-tolerated treatment for metastatic castration-resistant prostate cancer patients, according to [new research](#) published in the *Journal of Nuclear Medicine*.

Selected patients who received extended treatment—either continuously or following a treatment break—experienced a favorable median survival of 31.3 months from the first administration.

"Patient response to PSMA-targeted radiopharmaceutical therapy is highly variable in depth and duration of response," said Wolfgang P. Fendler, MD, vice chair of the Department of Nuclear Medicine at the University Hospital Essen, in Essen, Germany.

"It may be beneficial to extend the use of ^{177}Lu -PSMA, however, systematic data on safety and the antitumor effect of ^{177}Lu -PSMA radiopharmaceutical therapy beyond six cycles is scarce."

The multicenter retrospective analysis included 111 metastatic castration-resistant prostate cancer patients who received more than six cycles of ^{177}Lu -PSMA. Forty-three patients (38.7%) received continuous ^{177}Lu -PSMA treatment and 68 (71.3%) received rechallenge treatment after a therapy break of at least four months.

Researchers assessed overall survival, [prostate-specific antigen](#) (PSA) decline, PSMA PET response, and adverse events to determine the safety and efficacy of extended ^{177}Lu -PSMA therapy.

Overall survival from the initiation of ^{177}Lu -PSMA therapy was 23.2 months for the continuous treatment group and 40.2 months for the rechallenge group; the [median overall survival](#) for both groups was 31.3 months. The PSA decline of more than 50% and the initial partial response rate on PSMA PET was significantly higher in the rechallenge group than in the continuous treatment group. Rates of grade three to four toxicity were comparable between both groups.

"This study represents the inaugural multicenter investigation of extended ^{177}Lu -PSMA therapy, encompassing up to 13 cycles of

treatment, continuously or following a treatment break. Dose reduction and discontinuation rates due to adverse events were low and patients achieved durable responses after treatment pause," said Tugce Telli, MD, researcher at University Hospital Essen.

"Given the limited treatment options for metastatic castration-resistant prostate cancer, the extension or retreatment of ^{177}Lu -PSMA [therapy](#) beyond six cycles may be a valuable option for patients who initially have a good or excellent response to treatment."

More information: Robert Seifert et al, Safety and Efficacy of Extended Therapy with [^{177}Lu]Lu-PSMA: A German Multicenter Study, *Journal of Nuclear Medicine* (2024). [DOI: 10.2967/jnumed.123.267321](https://doi.org/10.2967/jnumed.123.267321)

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