We begin by using a targeting ligand/diagnostic radio-isotope combination to perform a PET/CT scan, to see if the right target receptors are present on the cancer cells. If present, it means a therapeutic agent can also be delivered directly to these targets.

Using the targeting ligand/therapeutic radio-isotope combination, radiation is carried precisely to the target receptor.

The radiation is intended to damage and kill the cancer cells. Most of the therapeutic agent travels to the tumour locations. What does not reach the target is excreted from the body quickly, but a small amount of radiation will travel to non-cancerous tissues.
Theranostics is not suitable for all patients, but may be an option in metastatic disease unresponsive to or unsuitable for conventional therapies. Most evidence to date is in metastatic castrate resistant prostate cancer and advanced neuroendocrine tumours (NETs).

- A Phase 2 study (n=30) of $^{177}$Lu-PSMA-617 showed ‘high response rates, low toxicity effects, and a reduction in pain in men with metastatic castration-resistant prostate cancer who have progressed after conventional treatments’\(^1\).

- In Phase 3 study, NETTER-1\(^*\), $^{177}$Lu-Dotatate resulted in markedly longer progression-free survival than high-dose octreotide LAR and was associated with limited acute toxic effects in a population of patients who had progressive neuroendocrine tumours that originated in the midgut\(^2\).

### Available services

<table>
<thead>
<tr>
<th>177 Lutetium PSMA</th>
<th>for Metastatic or Treatment Resistant Prostate Cancer</th>
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<tbody>
<tr>
<td>177 Lutetium Octreotate</td>
<td>for somatostatin receptor - positive tumours (available from Autumn 2019)</td>
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</table>

### Easy access
Cancer treatments at GenesisCare may be covered by insurance. We also offer self-pay options for Theranostics.

### How to refer a patient
Please send a referral/clinic letter to windsor.enquiries@genesiscare.com

### For more information
Contact us directly
**Tel:** 01753 418 444  
**Email:** theranosticsUK@genesiscare.co.uk  
**Website:** genesiscare.com

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\*NETTER-1 was a multicenter, international, randomised phase III study investigating the effects of $^{177}$Lu-Dotatate on patients with advanced, progressive midgut NETs. Adult patients (≥ 18 years) were eligible for the study if they had pathologically confirmed low or intermediate grade midgut NETs with baseline radiographic progression and evidence of somatostatin receptor expression on all target lesions using $^{111}$In-pentetreotide scan (OctreoScan, Mallinckrodt, St. Louis)


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