Radiotherapy is a cornerstone of cancer treatment. Around 120,000 cancer patients in the UK benefit from radiotherapy each year. Four in ten people who beat cancer have received radiotherapy as part of their cancer treatment. Each year, radiotherapy helps cure more people than anti-cancer drugs.

Radiotherapy is the use of ‘radiation’, usually X-rays, to treat cancer. Patients have radiotherapy at different stages of their cancer treatment. Radiotherapy can be given alone or in combination with other treatments such as drugs and surgery. It can be used to shrink tumours before surgery or afterwards to kill any cancer cells left behind. Radiotherapy can also be used to control symptoms such as pain.

As well as destroying cancer cells radiotherapy can also affect the surrounding normal cells. This can lead to side effects. The type of radiotherapy and machine used is chosen depending on the type of cancer and its position in the body. For more information, please visit our award-winning patient information website at [www.cancerhelp.org.uk](http://www.cancerhelp.org.uk).

Why are we asking MPs to raise the profile of radiotherapy?
Half of all cancer patients could benefit from radiotherapy, yet a Cancer Research UK survey of more than 2,000 people revealed just 14% are aware of this. We know that currently not all patients who could benefit from radiotherapy are doing so. We are concerned that the lack of public awareness means that radiotherapy does not receive the attention it needs to develop as a world-class service in the UK.

Radiotherapy services rely on both sufficient numbers of machines (linear accelerators) to deliver treatment, and a highly skilled workforce to plan treatment and operate this machinery. However, shortages in staff and machinery in the UK mean that some patients are missing out.

The estimated optimum proportion of patients receiving radiotherapy is around 52%. In 2007, access rates ranged from 43% in Scotland to 32% in Northern Ireland, with 38% in England and 37% in Wales. Radiotherapy activity across England varies by more than twofold. In regions of higher deprivation, fewer patients receive radiotherapy. Some patients still have to travel too far to receive radiotherapy and, in certain areas, patients are waiting longer than is acceptable for treatment.

The UK is also lagging behind America and the best in Europe in introducing more targeted forms of radiotherapy, which have fewer side-effects, such as intensity modulated radiotherapy (IMRT). While around 30 per cent of people receiving radiotherapy could benefit from IMRT, the UK is delivering IMRT to less than 10 per cent of patients.

We believe that everyone deserves the best cancer treatment. This can be achieved, but it will take a combined effort by the NHS, the government, and organisations like Cancer Research UK. Targeted and sustained funding is needed to ensure that improvements are made at the local level. As the NHS operates in a difficult financial climate, we need to make sure that radiotherapy services are not losing out.

**What can you do to help?**

1. Please support our call for an action plan for England so that we have the:
   - Appropriate workforce: We want the right staff in place with the right training to deliver the best services
   - Best treatments: We want all patients to have access to the best radiotherapy treatments
   - Capacity to plan for the future: We want radiotherapy services that can plan properly for the future

2. Please learn more about radiotherapy in [insert constituency] by asking your Primary Care Trust(s) a set of six questions about your local service. This information will allow you to hold them to account.
For more information please contact Laura McCann, Public Affairs Officer, on 020 3469 8499 or at 
laura.mccann@cancer.org.uk
**Questions to ask the Primary Care Trust(s) in your constituency**

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<tr>
<th>Question</th>
<th>Why is this important?</th>
<th>How your service should perform</th>
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<tr>
<td>What proportion of cancer patients in [name of PCT] receives radiotherapy as part of their package of treatment?</td>
<td>Experts recommend that just over half of all people with cancer should be receiving radiotherapy as part of their treatment. In 2007, it was estimated that only 37% of cancer patients in England accessed this treatment.</td>
<td>Your local service should be achieving the 52% recommended access rate.</td>
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<td>How many fractions of radiotherapy are being delivered per million population in [name of PCT]?</td>
<td>The number of fractions (doses of radiotherapy) per million people delivered across the country varies more than twofold. Although the number of fractions is a crude measure and doesn’t capture the quality of the radiotherapy delivered, it is a good starting point for discussions about what proportion of patients are receiving radiotherapy in any given area.</td>
<td>To meet current demand experts recommend we should be delivering 48,000 fractions per million population. By 2016 this will need to reach 54,000.</td>
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<td>What proportion of patients currently wait more than 31 days for radical radiotherapy in [name of PCT]? What types of cancer do these patients have?</td>
<td>The length of time that patients have to wait before they receive radiotherapy is important, and can impact on their chances of a good outcome. Patients should be receiving treatment within a maximum of 31 days. Where services are experiencing capacity shortages, this can push up waiting times for some patients.</td>
<td>According to national guidelines, 94% of all patients receiving radiotherapy as a first, second or subsequent treatment should start treatment within 31 days of a decision to treat.</td>
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<td>What proportion of patients in [name of PCT] are treated with (a) intensity modulated radiotherapy (IMRT) and (b) have access to image guided radiotherapy (IGRT)?</td>
<td>While the UK leads the world in trials for more advanced and targeted radiotherapy techniques, we know that these techniques are not routinely available to patients in many parts of the country. Understanding the scale of this problem can help us work to ensure that all patients are getting access to the most suitable radiotherapy treatment for them.</td>
<td>Around 30% of patients receiving radiotherapy could benefit from IMRT. All patients receiving radical treatment could benefit from IGRT.</td>
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<td>How old are the linear accelerators (“linacs”) in [name of PCT]? How many additional machines in [name of PCT] will be needed over the next five years?</td>
<td>Linacs are the machines used to deliver radiotherapy. Delivering radiotherapy is complex and needs careful planning. The UK’s ageing population and a focus on diagnosing cancer at a stage where we can better treat it means demand for radiotherapy machines is likely to increase. We need to ensure that radiotherapy centres are being supported to allow them to plan into the longer term.</td>
<td>Linacs need upgrading and replacing on average every 10 years.</td>
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<td>How many staff vacancies are there in each local radiotherapy centre in [name of PCT], and for what type of staff? How many additional staff will be needed over the next five years? What training plans are in place to ensure this need is met?</td>
<td>Staff shortages may mean that radiotherapy equipment can’t be put to its full use, or there isn’t capacity in the service to introduce new treatments. Estimates suggest around 10% of radiotherapy posts are vacant across the UK – Cancer Research UK wants to see this number fall significantly. All PCTs should have a training plan.</td>
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Please note that we are unable to comment on responses from individual PCTs.