

# Making outcome-based payment a reality in the National Health Service for England

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## Background

Many cancer medicines are made available on the National Health Service for England (NHS) based on a price discount agreed between the NHS and the manufacturer. Innovations should reach patients quickly, but this increases uncertainty about the drug's appropriate price.

More innovative ways for the NHS to pay for medicines, such as Outcome-Based Payment (OBP), which links a medicine's price to NHS patients' treatment outcomes, could provide a solution.

## Aim

This research explores the feasibility of introducing an Outcome-Based Payment approach for new cancer drugs in England.

## Methods

- A literature review explored the current funding landscape in England, the available evidence on existing OBP schemes internationally, and which outcomes cancer patients value most.
- Two focus groups and an online survey with patients and carers, as well as interviews with NHS and government stakeholders, healthcare professionals, and pharmaceutical industry representatives, provided additional evidence on the feasibility and suitability of OBP schemes.

## Results

- ✓ The literature review on outcome-based payment schemes identified 1,983 records, of which thirteen were full-text reviewed.
- ✓ The literature review on which treatment outcomes matter to cancer patients identified 1,257 records, of which 40 were full-text reviewed.
- ✓ Thirteen interviews with key informants were undertaken: NHS cancer clinicians; commissioners of cancer services and collectors of cancer data, including NHS England and PHE; pharmaceutical companies with pipelines of new cancer medicines; and international academic experts on OBP.
- ✓ Two focus groups were run.
- ✓ A total of 164 patients and carers provided complete responses to the survey.

### Which outcomes should determine the value of a drug?

Our literature review established the full scope of outcomes to be considered (Figure 1). Through further engagement with patients and carers, the ten most important outcomes when considering cancer treatment options were identified, and a set of **four outcomes** was identified as of greatest importance (Figure 2).

Figure 1

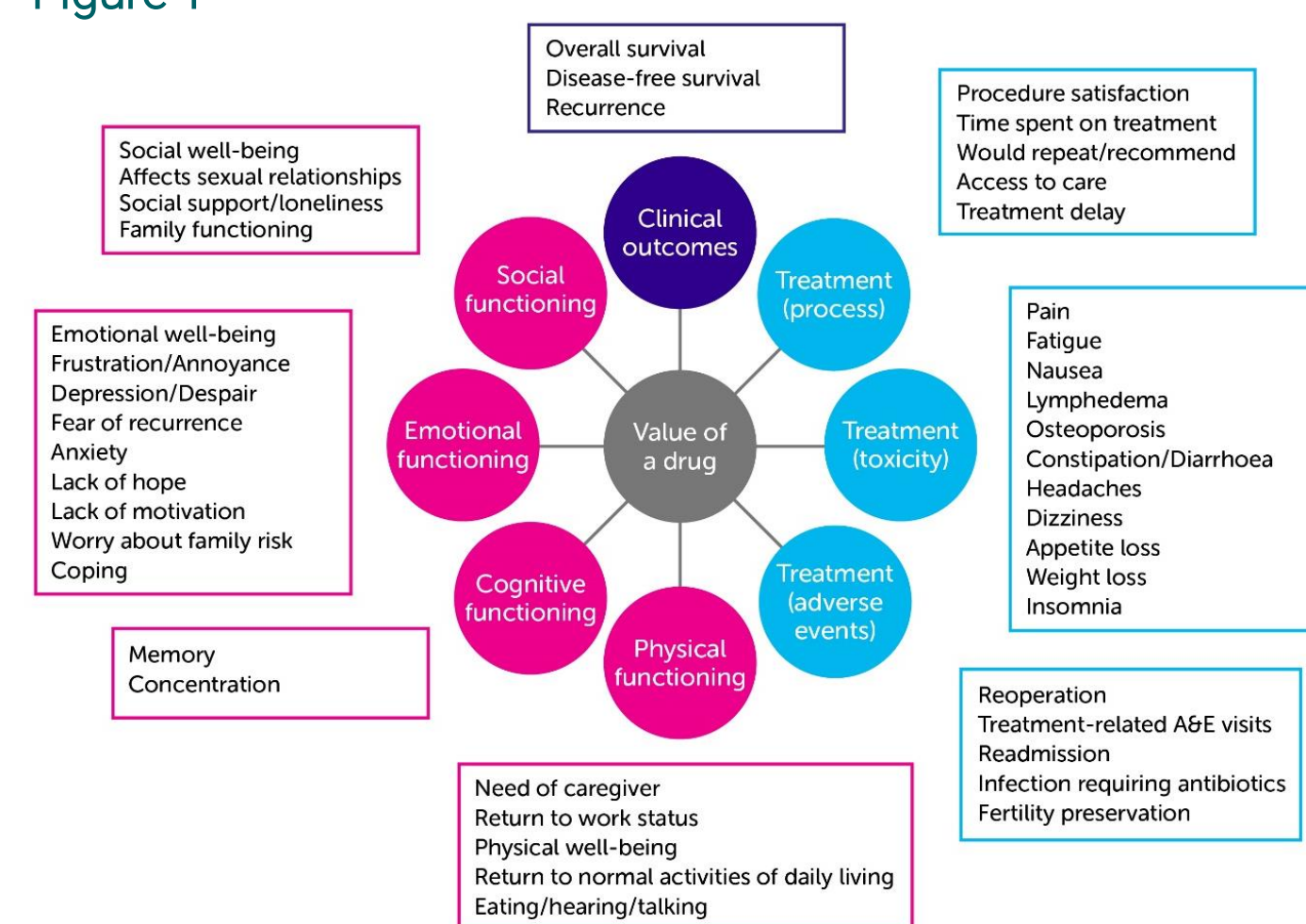


Figure 2

1. Survival
2. Progression, relapse or recurrence of your cancer
3. Long-term side effects
4. Return to normal activities of daily life
5. Short-term side effects
6. Emotional wellbeing
7. Satisfaction with treatment
8. Impact on family and caregivers
9. Re-surgery
10. Fertility problems

### How outcomes should/could be linked to the price of the drug? Challenges

Both the literature review and the interviews revealed that OBP schemes are not without difficulties in terms of implementation but that these are, or should be, surmountable.

Several different types of OBP schemes were identified in the literature along with numerous instances of those schemes being used in a range of countries internationally including Australia, Italy and the Netherlands. The existence of OBP schemes globally, including previous experiences in the UK, suggests that wider implementation of OBP in the NHS is possible.

Existing schemes are heterogenous in their design. In particular, factors affecting the specific outcomes metrics chosen should include at least: patient age, cancer type, cancer size and spread, and intent to cure or manage disease.

### Which medicines might be suitable for an OBP scheme in England?

Implementation of OBP in the NHS is desirable and particularly suitable for medicines with the following characteristics:

- Potentially large benefit to patients receiving the medicine
- Small to moderately-sized patient populations
- Immature clinical trials data
- A disease profile where improvements in outcomes measurable in the short-term (including overall survival and non-progression/relapse) are particularly valuable

## Recommendations

1. GMHSCP, Government, NHS England, the pharmaceutical industry, NICE and all other relevant stakeholders should continue to explore the use of OBP schemes, with the aim of facilitating patient access to cancer medicines in cases where a simple discount on the medicine's list price cannot be agreed on a timely basis. **Conversations should be taken forward on a joint basis**, through forums and initiatives such as the Accelerated Access Collaborative.
2. NHS England or NICE should **publish information on how outcomes are measured and linked to price** in any OBP schemes for medicines in operation in the NHS.
3. Future research into the use of OBP in the NHS should investigate with NHS staff **the practicalities of collecting data** for an OBP scheme, based on exemplar medicines and for measures of the core outcomes.
4. Future research into the use of OBP in the NHS should investigate the **relative weights which should be attached to measures** of the four core outcomes (and potentially others) we wish to see included in future OBP schemes. This should include seeking the views of patients and other key stakeholders. This research should also clarify options for linking outcomes to a drug's price in practice.
5. As part of future research into the use of OBP in the NHS, **a mapping exercise** should be undertaken to ascertain the appropriate data sources, and identify "gaps" in the capacity to collect data on the "standard" outcomes specified above. This review should involve NHS Trusts providing cancer care, Public Health England (PHE), NHS England and the pharmaceutical industry.
6. NHS England and PHE should ensure **resource is available** within PHE to monitor and analyse in a timely manner the data submitted to the Systemic Anti-Cancer Therapy database (SACT) as part of any future OBP schemes adopted in the NHS nationally; and should explore the feasibility of using SACT or another consolidated database to capture all four "standard" outcomes.

## Conclusion/future research

- The results were published in a research report in February 2019. The study found that OBP in the NHS is possible, but there are key challenges to its use including: timeliness and quality of real-world data; operational simplicity and minimising administrative burden; and achieving consensus on the outcomes used to determine price.
- OBP is most suitable where substantial uncertainty remains about a medicine's effectiveness based on clinical trial data. In such cases it could facilitate faster patient access. There is no single best OBP scheme to apply generally, but some priority patient outcomes can be identified and should be included in future schemes.
- The next phase of our research is now underway and will run until Summer 2020. It will focus on addressing key uncertainties and barriers identified in Phase 1, in particular understanding the real-world NHS data environment. It will also establish the necessary steps for implementing a pilot OBP scheme in Greater Manchester.

