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Demands for 'off-licence' access to trastuzumab (Herceptin): content analysis of UK newspaper articles

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Abstract

Background Sensationalized reporting styles and a distorted framing of health-care issues in newspapers may trigger inappropriate commissioning decisions. We evaluated UK press coverage of pre-licensing access to trastuzumab (Herceptin) for early breast cancer as a case study.

Methods and findings Content analysis of newspaper articles published between April 2005 and May 2006 were coded by two researchers for interest groups represented, claims made and sensationalized reporting. Disagreements in coding were resolved by a third researcher. One thousand and ninety published articles were identified in the study period and a 20% sample ($n = 218$) was included in the content analysis. Most articles (76%, 95% CI 71–82) included claims about the clinical benefits of trastuzumab, and this was significantly higher than those expressing the uncertainty surrounding such benefits (6%, 95% CI 3–9) or those that discussed the potential harms (5%, 95% CI 2–8). Articles were significantly more likely to feature claims made by a breast cancer survivor or family member than any other interest group ($P < 0.0001$). Almost half of the articles carried some message to the effect that trastuzumab would make the difference between life and death (47%, 95% CI 40–53). Over a quarter (28%, 95% CI 22–34) suggested that trastuzumab is a 'miracle drug' or similar.

Conclusions The benefits of drugs are highlighted, frequently using sensationalist language, without equal consideration of uncertainty or risks. Health-care purchasers should express decisions in opportunity cost terms; journalists should give fairer coverage to such arguments.

Introduction

The news media are often the primary source of information for many lay people, and may influence health-care professionals and decision makers.[1–4] Fifteen years ago, a study on lay reporting of medical research indicated that 'inappropriate action at individual or societal levels may be triggered by … a distorted framing of issues or a sensationalized reporting style'.

The author showed that press coverage was 'responsible for the raising of individual hopes for ''miracle cures''' and that decisions about which treatments to purchase ('commissioning decisions') could be 'forced without evaluating the balance of risk/benefit'.[3] These matters are of particular concern where a story involves a complex reality with competing claims and interest groups motivated by different principles of medical ethics.

Peer reviewed publications of clinical trials can downplay harms and exaggerate benefits or the extent of certainty about those benefits.[5,6] However, the publication of positive trial results is often taken to mean that patients have a 'right' to a drug.[7] Those motivated primarily by beneficence (defined by Jefford as promoting the best interests of an individual patient or patient group[8]) are concerned that, where drugs are not reimbursed, the costs to individuals are often prohibitively high. Those who are more concerned with distributive justice (allocating limited resources fairly) must take the opportunity cost into account: the benefits that would have been generated by treatments that are no longer provided as a result of funding the new intervention.[8] Appropriately framed reporting of health-care access in the face of regulatory delays would incorporate information about treatment harms, opportunity costs and uncertainties as well as clinical benefits[1]. The case of trastuzumab (Herceptin®; Roche Products Limited, Welwyn Garden City, UK.) for the treatment of early breast cancer in the UK provides a particularly prominent opportunity to assess whether the printed media do report in such a way.

As with many health-care stories, the coverage of trastuzumab focused on delays between the publication of trial results, regulatory approval and reimbursement of new therapies. On 26 April 2005, the British media reported results from the first Phase III studies evaluating the addition of trastuzumab to standard chemotherapy for the adjuvant treatment of human epidermal growth factor receptor-2 positive early breast cancer.[9] Over the next 13 months, until the European Commission granted marketing approval for its use in the adjuvant setting, access to trastuzumab was a subject of sustained interest in the print media. The National Institute for Health and Clinical Excellence (NICE)[10] issued its draft guidance for use in the UK 2 weeks later. We undertook a content analysis of newspaper articles published during this period to test our hypothesis that, across the board, there was inappropriate framing and sensationalized reporting of the topic.

Methods

Content analysis is an approach that enables the systematic description of large volumes of textual data. By counting how often particular claims and actors are mentioned, content analysis provides an overview of the key themes that are highlighted as well as those that are reported infrequently or ignored. We were interested in newspaper articles published between 26 April 2005, when the results from the first phase III clinical trials were initially released,[9] and 24 May 2006, when the European Commission granted marketing approval for the adjuvant use of trastuzumab in breast cancer. This sample frame specifically excludes articles relating to trastuzumab's use in advanced breast cancer, which was well-established in the UK by this time, and involves only the campaign to extend the health-care coverage to an unlicensed use in early breast cancer. We retrieved articles from all titles in Newsbank, which archives 13 English national and 39 English local titles, six Scottish titles, two Welsh titles and two Northern Irish titles. We informally described the distribution and content of all articles over the sample frame.

For the main analysis, we used a computer-generated random number generator to derive a 20% convenience sample of articles. We believed that a distorted framing of issues would be identified by a preponderance of certain claims and direct representation of the opinions of particular interest groups at the expense of others (Box 1). We produced a standardized reporting form identifying 11 claims and 9 categories of interest groups. Where an article mentioned an interest group that did not fit into

Box 1 Examples of claim categories

Trastuzumab confers clinical benefit(s)

'Herceptin is proving incredibly effective in fighting this disease' (Doctors hail breast cancer drug trial, *The Times*, 14 May 2005).

There is uncertainty about clinical benefit(s)

The ability of the treatment to reduce the death rate can't yet be analysed as the trial hasn't continued long enough to make the results statistically significant. (A drug right on target, *The Times*, 19 May 2005).

Trastuzumab causes clinical harm(s)

However, according to the Herceptin website 'administration can result in the development of certain heart problems, including congestive heart failure'. (Cancer drug delivers hope – and £2.5 billion, *Observer*, 23 October 2005).

There is uncertainty about clinical harm(s)

But [the Department of Health] pointed out that more data was needed to prove that Herceptin was safe. (A victory for the patient, *Express*, 4 October 2005).

Trastuzumab is expensive

She said a consultant in Bristol offered Herceptin for £1600 per dose to private patients, with a year's treatment costing pounds £27 000. (Mum sells home to fund vital treatment, *Birmingham Post*, 9 June 2005).

There would be an opportunity cost to funding trastuzumab

Laura Butcher of the International Myeloma Foundation said: 'Some PCTs say we have no money for other drugs because Herceptin has been made a priority'. (Cancer Drug Confusion, *Express on Sunday*, 19 February 2006).

Not funding trastuzumab is the opportunity cost of waste/treating the unworthy

If healthcare rationing must take place, then it should be to stop some of the unnecessary operations such as tattoo removal or sex change operations. (Deadly unfair healthcare, *Express*, 23 September 2005).

Private and foreign insurance systems fund trastuzumab

'There are private patients in the early stages of cancer who are getting it in this country privately and it is also being used in this way in Canada, America, France and Germany without any known side-effects'. (The wonder drug, *Express on Sunday*, 24 July 2007).

Private and foreign insurance systems may not fund trastuzumab

The refusal of Axa PPP Healthcare to pay for the drug Herceptin for women with early stage breast cancer beggars belief. (They're playing with lives, *Daily Mail*, 05 October 2005).

Access to trastuzumab is a right

Miss Clark … claims that the NHS is denying her the 'right to life'.

Access to trastuzumab is not a right

Yesterday Mr Justice Bean found that Swindon's PCT's policy was not unlawful, either in English law or under the European Court of Human Rights.

one of the existing categories, this was also recorded.

We identified two general categories of reporting which could be characterized as sensationalized. First was the consideration of trastuzumab as either a cure or a life-saving technology, or equating the withholding of trastuzumab with death. Such claims would be considered to be inaccurate because they ignore the natural history of breast cancer which, even with adjuvant therapy, can recur many years after surgery.[11,12] The pivotal clinical trials the newspapers reported on followed up women for either 1 or 2 years after treatment and demonstrated that adjuvant trastuzumab reduces the absolute risk of death by 1·8% over 2 years; an eighth of women still die or relapse over the same period.[13] The second theme concerned the portrayal of trastuzumab as a treatment that heals but does not harm. The use of military metaphors (such as 'targeted therapy' and 'smart bomb') or supernatural labels ('magic bullet', 'miracle-' or 'wonder-drug') imply unrealistically large degrees of benefit and small degrees of harm.[14,15] Such terms distract from or downplay the risks of clinical harms, such as life-threatening pulmonary toxicity and infusion reactions, which are associated with trastuzumab.[16] The third theme, which was a subcategory of the second, concerned the portrayal of trastuzumab as having supernatural qualities. Phrases involving the words 'magic', 'miracle' and 'wonder' engender unrealistic expectations of benefit in the public as well as trivializing both the harms and opportunity costs.[15]

Two researchers (DH and PS) independently counted the presence of claims, interest groups and sensationalized reporting themes in each article. We used Cohen's Kappa to test inter-rater reliability of our identification of claims and hyperbolic themes, both of which become more subjective as language becomes more abstract. Disagreements were resolved by the third researcher (AW). We used Wilson's method to calculate confidence intervals for the proportions of articles containing any particular claim.[17] We used McNemar's test to calculate the likelihood that differences in the numbers of

articles containing opposing claims about trastuzumab were due to the play of chance alone.[18]

Results

Description of the distribution and content of the sample

The search retrieved 1090 newspaper articles, excluding duplicates, from the 13-month period, from which a random sample of 218 was generated (Table 1). The title with the most citations ($n = 100$) was the local Bristol newspaper, the Western Daily Press (mostly relating to local campaigner, Barbara Clark), but the next seven titles were English national titles. Initial reports focused on the clinical benefits identified by trials conducted in the USA. Coverage intensified after June 2005 (see Fig. 1), when Somerset Coast Primary Care Trust (PCT, a publicly funded organization responsible for commissioning acute services for local populations) refused breast cancer survivor Barbara Clark access to trastuzumab, 7 months before the manufacturer (Roche Products Limited) applied for EU marketing approval. No articles condemned Roche for the delay in their license application, whereas 36 (21–54) percentage of newspaper articles published between April and September attacked NICE for anticipated post-marketing delays in availability caused by the length of time they typically took to issue reimbursement guidance for PCTs. Interest in trastuzumab peaked for the first time in October 2005, focusing on three events: (i) Somerset Coast PCT agreed to fund trastuzumab for Barbara Clark; (ii) the Secretary of State for Health, Patricia Hewitt, announced the launch of a rapid process for evaluating new medicines (including trastuzumab) at NICE, which relied on a submission from the manufacturer rather than an independent assessment group; and (iii) an analysis of the European HERA study was published with a median follow-up of 1 year. At the end of that month, the content of another speech was interpreted by many as a change of government policy. For most of October, Hewitt and Department of Health spokespeople followed more or less the exact wording of a statement by the National Cancer Director, Mike Richards: 'It may be appropriate in exceptional circumstances for particular patients to be prescribed an unlicensed drug and a hospital consultant can arrange for the supply of such drugs *provided the Primary Care Trust or the NHS Trust agree to*

Table 1 Frequency of articles referring to trastuzumab in 52 British news titles

	Overall ($n = 1090$)	%	Sample ($n = 218$)	%
England, local (from 28 titles)	**372**	**34.1**	**80**	**36.7**
England, national (from 14 titles)	**575**	**52.8**	**106**	**48.6**
The Sun	95	8.7	17	7.8
The Daily Mail/Mail on Sunday	84	7.7	16	7.3
The Times	82	7.5	15	6.9
The Express/Express on Sunday	73	6.7	20	9.2
The Guardian	67	6.1	10	4.6
The Daily Mirror/Sunday Mirror	54	5.0	9	4.1
The Independent/Independent on Sunday	45	4.1	7	3.2
The Daily Telegraph/Sunday Telegraph	34	3.1	7	3.2
The Observer	16	1.5	2	0.9
The News of the World	12	1.1	2	0.9
The Sunday Times	9	0.8	0	0.0
The Sunday People	4	0.4	1	0.5
Northern Ireland (from 2 titles)	**30**	**2.8**	**3**	**1.4**
Scotland (from 6 titles)	**47**	**4.3**	**10**	**4.6**
Wales (from 2 titles)	**66**	**6.1**	**19**	**8.7**
Total	1090	100.0	218	100.0

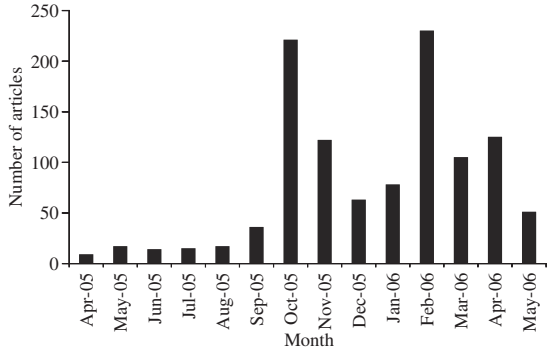

Figure 1 Frequency of articles referring to trastuzumab, month-by-month (n = 1090).

supply it at NHS expense' (our emphasis). But on 25 October 2005, Patricia Hewitt announced, 'As with other unlicensed drugs, *it is down to individual clinicians* to decide whether or not to prescribe Herceptin … *PCTs should not refuse to fund herceptin solely on the grounds of its cost*' (our emphasis). The King's Fund, an independent charitable foundation, characterized Hewitt's intervention as 'a substantial deviation from the procedures set up to recommend therapies for use in the NHS'.[19] Hewitt's argument was used by the solicitors of Ann Marie Rogers in her campaign to access the drug, press coverage of which ran from December 2005 to March 2006. Interest peaked for a second time in February 2006, when Jayne Sullivan began a vigil in the Welsh Assembly building and Ann Marie Rogers lost her court case against Swindon PCT for access to trastuzumab (which was later reversed on appeal). We identified no British newspaper that reported on the publication, on 23 February 2006, of the publicly funded Finnish trial, which achieved excellent efficacy results with one-fifth of the dose of trastuzumab recommended by Roche, facilitating 'lower cost, greater patient convenience, and reduced risk of cardiotoxicity'.[20,21] Trastuzumab received European marketing authorization on 24 May 2006, a NICE appraisal committee considered evidence for its cost-effectiveness the following day, draft guidance was issued 2 weeks later and the final guidance (following an appeal by Newbury and Community PCT) was issued in August 2006.

There was good ($\kappa \geq 0.6$) or very good ($\kappa \geq 0.8$) agreement in the identification of claims made about trastuzumab, although agreement was more difficult ($\kappa < 0.8$) on questions concerning opportunity cost and uncertainties in treatment effect (Table 2). There were significantly more articles containing claims that trastuzumab confers clinical benefit than those claiming that it caused clinical harms ($P < 0.0001$). Ten of the 218 articles (4.6%)

Table 2 Claims made about trastuzumab

Claim	n/218	Percentage (95% CI)	Kappa
Clinical Effectiveness			
Trastuzumab confers clinical benefit(s)	166	76.1 (70.5–81.8)	0.94
There is uncertainty about clinical benefit(s)	13	6.0 (2.8–9.1)	0.87
Trastuzumab causes clinical harm(s)	11	5.0 (2.1–8.0)	0.95
There is uncertainty about clinical harm(s)	9	4.1 (1.5–6.8)	0.71
Cost, opportunity cost and comparative reimbursement systems			
Trastuzumab is expensive	114	52.3 (45.7–58.9)	0.97
There would be an opportunity cost to funding trastuzumab	9	4.1 (1.5–6.8)	0.75
Not funding trastuzumab is the opportunity cost of waste/treating the unworthy	6	2.8 (0.6–4.9)	0.60
Private and foreign insurance systems fund trastuzumab	16	7.3 (3.9–10.8)	0.83
Private and foreign insurance systems may not fund trastuzumab	5	2.3 (0.3–4.3)	1.00
Rights			
Access to trastuzumab is a right	25	11.5 (7.2–15.7)	0.98
Access to trastuzumab is not a right	2	0.9 (−0.3–2.2)	1.00

considered both claims. About 10% of articles made claims about the uncertainties of treatment effects. Over half of articles referred to trastuzumab as 'expensive' or cited five-figure costs for treatment courses ($n = 114$). This was significantly more than the number of articles that discussed opportunity cost ($n = 15$; $P < 0.0001$). There was no significant difference between the number of articles that framed opportunity cost, either in a way that implied criticism of (Table 2, Claim 6) or support for (Table 2, Claim 7) the reimbursement of trastuzumab ($P = 0.6$). Significantly more articles claimed that private and foreign insurance systems fund trastuzumab than those that claimed that private and foreign insurance systems may not fund trastuzumab ($P = 0.03$). Significantly more articles claimed that access to trastuzumab was a right than those that claimed that it was not a right ($P < 0.0001$).

Newspaper articles were significantly more likely to feature claims about trastuzumab made by a breast cancer survivor or family member than any other interest group ($P < 0.0001$; Table 3). PCTs, representing health-care purchasers, were the second most commonly represented category (see Discussion).

The number of articles that claimed that trastuzumab was or was not a 'cure' was small ($n = 19$) and there was no difference between opposing viewpoints ($P = 1.0$; Table 4). However, 46.8% of articles carried some message to the effect that trastuzumab would make the difference between life and death (Table 4). Messages that used military metaphors to imply that trastuzumab healed without harming were found in 5.1% of articles. However, attributions of supernatural powers to trastuzumab were found in 27.5% of articles, significantly more than said it was not a miracle drug ($P < 0.0001$).

Table 3 People who talked about trastuzumab

Pre-specified actor category	*n*/218	Percentage (95% CI)
Individual with history of breast cancer or their family member	104	47.7 (41.1–54.3)
PCT	35	16.1 (11.2–20.9)
Politician	33	15.1 (10.4–19.9)
Charity/pressure group	24	11.0 (6.9–15.2)
Oncologist/'breast specialist'	17	7.8 (4.2–11.4)
Journal/journal editor	10	4.6 (1.8–7.4)
Department of Health	9	4.1 (1.5–6.8)
Roche (manufacturer)	7	3.2 (0.9–5.6)
NICE	1	0.5 (−0.4–1.4)
Other categories	41	18.8 (13.6–24)
Legal profession (lawyer, solicitor, judge)	24	11 (6.9–15.2)
Unspecified 'specialists' or 'experts' or 'scientists'	5	2.3 (0.3–4.3)
Private insurer	3	1.4 (−0.2–2.9)
Nurse (non-patient)	2	0.9 (−0.3–2.2)
Health economist	2	0.9 (−0.3–2.2)
Celebrity (including royal)	1	0.5 (−0.4–1.4)
Financial services	1	0.5 (−0.4–1.4)
Scottish medicines consortium	1	0.5 (−0.4–1.4)
Trade union representative	1	0.5 (−0.4–1.4)
Acute trust spokesperson	1	0.5 (−0.4–1.4)
EMEA	1	0.5 (−0.4–1.4)
No source	72	33 (26.8–39.3)

NICE, National Institute for Health and Clinical Excellence; PCT, primary care trust; EMEA, European Medicines Agency.

Discussion

This study evaluated the types of actors and themes that featured in news media reports of trastuzumab for early breast cancer in the UK. We found that reports were dominated by those concerned with the individual patient or groups of patients, whereas the views of those who must consider opportunity cost, such as purchasers, were reported less frequently.

Reports highlighted the claimed clinical benefits of trastuzumab but rarely considered the uncertainty surrounding these benefits or the potential clinical harms to the same degree. Frequently, sensationalist language was used to describe trastuzumab, which further emphasizes the clinical benefits whilst downplaying any concern for uncertainty or risk.

When the language of rights was used, access to trastuzumab on the NHS was likely to be framed as a right, and this was reinforced by highlighting those instances where foreign health-care systems and the privately insured had access to trastuzumab rather than those where they did not.

Table 4 Sensationalized reporting

	n/218	Percent (95% CI)
'Access to trastuzumab is the difference between life and death'		
Trastuzumab is a cure (or similar)	5	2.3 (1.0–5.3)
Trastuzumab is a cure (or similar), hedged	5	2.3 (1.0–5.3)
Trastuzumab is life-saving (or similar)	62	28.4 (22.9–34.8)
Trastuzumab is life-saving (or similar), hedged	18	8.3 (5.3–12.7)
Withholding trastuzumab is a death sentence (or similar)	21	9.6 (6.4–14.3)
Any of the above	102	46.8 (40.3–53.4)
Trastuzumab is *not* a cure (or similar)	9	4.1 (2.2–7.7)
'Trastuzumab heals but doesn't harm'		
Military metaphors		
Trastuzumab is a targeted therapy (or similar)	8	3.7 (1.9–7.1)
Trastuzumab is a targeted therapy (or similar), hedged	3	1.4 (0.5–4)
Supernatural labels		
Trastuzumab is a miracle drug (or similar)	34	15.6 (11.4–21)
Trastuzumab is a miracle drug (or similar), hedged	26	11.9 (8.3–16.9)
Trastuzumab is a miracle drug (or similar), with or without hedging	60	27.5 (22.0–33.8)
Trastuzumab is not a miracle drug (or similar)	6	2.8 (1.3–5.9)

Strengths and weaknesses of the study

Content analysis captures the incidence with which claims or interest groups are represented, but a potential weakness of the approach is that it can give a misleading impression of the salience or intensity of an issue in any particular newspaper. For instance, the perspective of health-care purchasers may appear to be relatively well-represented, with claims made by PCTs more common than any other group apart from breast cancer survivors and their families. However, this is to ignore the ordering and framing of quotations by which journalists strengthen the transmission of some propositions at the expense of others, a function of discourse analysis, which is outside the scope of the our work.[22]

Our analysis looks only at the content, not the production and reception of media output. The prevalence of patient voices in our sample might appear to contradict the commonplace that access to journalists is largely restricted to the economically and politically powerful.[23] This would overlook the roles played by the manufacturer, Roche, in bringing women with breast cancer (whose messages were consistent with their own) to journalists through the PR agencies Ketchum and Porter Novelli.[24] In a similar vein, the Human Rights Act 1998, which translated the European Convention on Human Rights into UK law, has brought powerful legal interests into this arena: the promotional campaign 'Fighting for Herceptin', organized by solicitors Irwin Mitchell, was shortlisted for the 2006 Chartered Institute of Public Relations Excellence Awards.[25]

We also draw no conclusion as to whether the distorted framing and sensentionalized reporting we identified did in fact trigger inappropriate action at an individual or societal level. Another study, based on interviews with public health experts and policy-makers found that the latter sometimes take their cue from the media in investing resources, with acknowledging that this may be 'at the expense of other health-related initiatives that bring greater benefit at less cost'.[26]

Recommendations

Lay-reporting of medical research is an issue of international concern, with recent American, Canadian and Australian studies, similar to our own, all reporting poor discussion of costs, the clarity of the evidence and treatment-related harms.[27–29] In the UK, there is also a long-standing interest in media reporting of health-care 'rationing' or 'prioritization'. Entwistle *et al.*'s[4] study of the media coverage of the 'Child B' case adopted a more concentrated and qualitative approach to the analysis of 149 articles over a 5-day period. It demonstrated that anyone reading just one newspaper would have received only limited and partial information. Wilson *et al.*, like ourselves, considered the printed media coverage of trastuzumab.[25] Their analysis found that the general tone in media accounts was positive towards trastuzumab and that, although the main focus was access to treatment, the process for drug reimbursement, particularly in relation to licensing, was rarely mentioned. As with our analysis, they identified that individual patients featured heavily. Our study complements the findings of these studies by demonstrating that the print media, as a whole, is more likely to promote access to treatments for individuals or particular patient groups (beneficence) than the maximization of population health (distributive justice). As with both of these studies, we conclude that reporting was balanced neither in terms of the sectional interests represented nor the issues that were covered. The opportunity cost of reimbursing expensive new therapies is rarely considered, and this raises important implications for decision-making and purchasing bodies.

It must be recognized that pharmaceutical companies have at their disposal publicity machines, both official (PR companies, key opinion leaders) and unofficial (through the influence they exercise over charities and patient groups), which dwarf the means available to bodies such as NICE and PCTs to get their message heard. Although NICE are now confident in defending their work, the representatives of PCTs may not always anticipate and meet the challenges of putting their case in the glare of the media. There may be a role for alliances of NHS organizations of the sort discussed by Wells and Cheong-Leen[30] in representing the priorities of PCTs to the press as well as to NICE. In any event, there are three key messages that need active dissemination in conditions like those on which we have reported. First, NICE are unable to issue guidance on drugs before they have marketing approval from the European Medicines Agency (EMEA, an organ of the EC directorate of trade), applications for which can only be made by the manufacturer. The delay in the availability of trastuzumab was the responsibility, not of NICE, but of the manufacturer, who did not make their application until February 2006. Second, both NICE and PCTs are democratically mandated to prioritize health care according to the principles of equity and the maximization of population (not individual) health.[31] Third, every decision to invest in a new type of health care involves disinvestment from an old one, which should be considered unethical before the safety and efficacy of the new treatment has been confirmed by EMEA. Tabloid newspaper articles in our sample identified treatments for patient groups they considered less worthy than women who might benefit from Herceptin. However, examples such as tattoo-removal operations, where they are funded by the NHS at all, are comparatively low-cost and low-volume activities, which would not balance the budget.

NICE has yet to offer advice on interventions that should not be funded since the inception of its disinvestment programme in 2006, as the Cooksey Report has highlighted the need for methodological development in this area.[32,33] In the meantime, decisions on new investment are often made centrally by NICE, whereas decisions on disinvestment are always made locally by PCTs. NICE's decisions on the new investment are publicly visible, use well-understood decision thresholds and are informed by synthesis of clinical evidence by (outside of Single Technology Assessment programme) independent researchers using transparent methodologies. The basis for local disinvestment

decisions is unclear. Most of NICE's decisions on new investment, and the greatest part of their impact on the NHS budget, involve newly marketed pharmaceuticals for the treatment of people with cancer. We know little about what is decommissioned at the local level in order to cover the cost, but it is unlikely to involve other cancer drugs that are still under patent. However, a BBC television documentary recently highlighted the opportunity costs of cancer drug reimbursement for non-cancer services, focusing on perinatal care for the economically disadvantaged, and the palliative care of those with cancer whose disease was no longer amenable to drug treatment.[34] The very real danger that reimbursement of novel chemotherapies might result in the withdrawal of services from other cancer patients has also been noted by oncologists.[35]

Conclusion

Over a decade since Entwistle *et al*.'s critique of the media's coverage of the Child B case, a distorted framing of issues and a sensationalized reporting style is still prevalent in lay media coverage of health-care prioritization.[4] In the context of declining sales and tighter advertizing revenues, it is likely that fewer print journalists will have time to accurately represent in plain language, clinical harms, the uncertainties surrounding clinical benefits and opportunity costs associated with commissioning novel therapies. NHS organizations need to work to make understood their remit of equity and population health maximization. More research is needed on how decommissioning takes place at a local level and the negative effects of commissioning novel drug therapies on other population groups.

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Conflicts of interest

All three authors have undertaken work for the National Institute for Health and Clinical Excellence. AJW still undertakes such work.

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