



## The Bendien Business: British Medical and Newspaper Coverage of a Dutch Test for Cancer

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### **Abstract**

This paper examines the brief but intense media coverage of the Bendien test, a diagnostic tool for cancer, during interwar Britain. While British medical authorities encouraged little press coverage of cancer diagnostics, fearing public reaction, the Bendien test is a notable exception that challenges the expected treatment of cancer news for British citizens. Using national newspapers and medical journals, I examine the complex relationship between reporters and medical researchers in a time of expanding knowledge of cancer treatment, where the Bendien test was popularized through newspaper reporting. While medical texts are often considered a more accurate standard for evaluating medical technology, coverage of the Bendien test in newspapers parallels and interacts with medical coverage, demonstrating an intimate connection between medical and national news. Despite an attempt to limit authority to medical press, newspaper reporting provided a demanded outlet for cancer news, complicating the role of experts in the field.

### **Keywords**

Science journalism, cancer diagnostics, newspapers, reporting, interwar.

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## **El asunto ‘Bendien’: cobertura médica y periodística británica de una prueba diagnóstica holandesa para el cáncer**

Este trabajo examina la breve pero intensa cobertura de los medios de la prueba de Bendien, un método de diagnóstico para el cáncer, durante la Gran Bretaña de entreguerras. Mientras que las autoridades médicas británicas alentaron poca cobertura de prensa sobre el diagnóstico de cáncer por temor a la reacción del público, la prueba de Bendien fue una excepción notable que desafió el tratamiento esperado de las noticias sobre el cáncer para los ciudadanos británicos. Utilizando periódicos nacionales y revistas médicas, se examina la compleja relación entre periodistas e investigadores médicos en un momento de expansión del conocimiento del tratamiento del cáncer, en el cual la prueba de Bendien se popularizó a través de la cobertura periodística. Mientras que los textos médicos suelen ser considerados un estándar más preciso para evaluar la tecnología médica, la cobertura de la prueba de Bendien en los periódicos es paralela e interactúa con la cobertura médica, mostrando una conexión íntima entre las noticias médicas y nacionales. A pesar de un intento de limitar la autoridad a la prensa médica, los informes de los periódicos proporcionaron un demandado canal de difusión para las noticias sobre el cáncer, complicando el papel de los expertos en el campo.

### **Palabras clave**

Periodismo científico, diagnóstico del cáncer, periódicos, cobertura de prensa, período entreguerras.

## 1. Introduction

On July 31, 1931 *The Times* of London reported a discussion in the House of Commons about the “recent investigations of Dr. Bendien, of Holland, into the possibility, by means of blood tests, of making the diagnosis of cancer in its early stages certain” (“House Of Commons,” 1931, p. 7). Many throughout Britain hoped that Bendien had developed an effective test to identify cancer early enough to be treated and cured. While the general public did not have access to the active debate in medical journals surrounding Bendien’s test, newspapers relayed what information they could to demanding readers, presenting optimistic articles about the future of cancer diagnostics. After only a few months, however, Bendien’s name was associated with failure. His test had been deemed ineffective by the British medical authorities and his research no longer made the news.

The brief but intense media coverage of Bendien’s test provides a case study for the little studied relationship between medical advancements and news in interwar Britain. Previous literature has shown that during this period, the British Empire Cancer Campaign (BECC) elected not to educate the public and instead restricted research announcements to the medical community (Moscucci, 2010, p. 362-363; Domenech and Castañeda, 2007, p. 1565-1566). The British Medical Association (BMA) discouraged “indirect advertising” and kept the names of individual doctors out of the press. Further, despite internal divisions, doctors were concerned with appearing united to the general public, and therefore limited controversy and disagreements to medical journals. While historians have investigated press coverage restrictions, little is known about how journalists reported medical news in interwar Britain.

In this essay, I will situate Bendien’s work, and its reception in the medical and lay press, within a structure of medical communication hierarchically divided between medical elites, everyday practitioners, journalists, and the general public. I analyze coverage of Bendien’s test to explore the tension between medical literature and public newspapers around cancer education and diagnostics. By juxtaposing articles from a digitized British newspaper archive along with original letters and articles from archives in London and Manchester, I explore the attitude toward cancer research coverage in 1930s Britain. In her recent book, *Hearts Exposed: transplants and the media in 1960s Britain*, Ayesha Nathoo (2009) problematizes a perceived simple relationship between medicine and news, arguing that the media played an important role in British coverage of the first heart transplant. While the medical establishment still attempted to confine information to doctors through the 1960s, following the earlier trend, Nathoo claims that there was a greater, and purposeful, exchange between the press and those in the medical field. Similarly, I will argue

that although there was a concerted effort to conceal cancer information from the media, cases like the Bendien test reveal that this rule was not always enforced or enforceable.

With that end, first, I explain Britain's paternalistic attitude toward cancer research during interwar Britain, and situate Bendien and his research within cancer science of the time. I will then show how Bendien's work was presented in both the medial and lay press, and demonstrate the shifting authority of cancer knowledge for interwar Britain, particularly for the general public. Finally, I will show the lasting implications of Bendien's work beyond 1931, proving that Bendien's test informs a deeper understanding of medicine and news.

## 2. Paternalistic Care: The British Attitude toward Cancer Education

While cancer deaths have been common since ancient times, it is not until the nineteenth century that doctors began recommending surgery for cancerous growths, initiating an interest in diagnosing the disease in order to treat cancer efficiently (Löwy, 2010b, p. 18). Doctors believed treatment was possible given an early diagnosis, and developed tests for cancer based on blood and urine samples, the most readily available bodily fluids (Büttner and Päuser, 2004, p. 159–161). These diagnostic tests transformed the view of disease from a collection of symptoms to a stable, identifiable entity, separating a normal body from a diseased body (Löwy, 2010b, p. 5). By the early twentieth century, diagnostics became a "key organizing principle of modern medicine" (Löwy, 2010b, p. 5).

Diagnostics also reflected the shifting hierarchical divide in medicine that stabilized in the twentieth century. While there had been a traditional division among medical practitioners into physicians, surgeons, and apothecaries from the early modern period, this transformed into a division of "upper class, elite hospital consultants versus the growing group of middle-class general practitioners" by the 1900s (Nathoo, 2009, p. 35; Webster, 1979). This division into the upper class and everyday medical practitioners meant that basic tests, such as urinalyses, could be performed by general practitioners or nurses, but clinical pathologists were required to perform more advanced bacteriological and biochemical tests (Olszynko-Gryn, 2014, p. 234). Despite this hierarchy, doctors were still concerned with presenting a "unified medical profession," which remains the case today (Nathoo, 2009, p. 35). The medical community as a whole doubted the public's capacity for understanding cancer and suppressed knowledge (Cantor, 2008, p. 9).

This paternalistic attitude is obvious in medical literature from the time, particularly in Charles Childe's *The Control of a Scourge: How Cancer is Curable*, where he pushed a message of educating doctors about cancer symptoms. Published in 1906, Childe's almost three-hundred page book is the most well known work concerning cancer education in Britain from the early twentieth century (Cantor, 2008, p. 119). Its message was clear: cancer is curable if identified early, before symptoms have progressed (Childe, 1906, p. 227–228). Childe recognized the importance of cancer prevention, writing that even "the most unbending medical Tory will raise no objection to dissemination of knowledge tending to the prevention of this disease," but he was more focused on surgery than diagnostics and more concerned with educating general practitioners than the general public (Childe, 1906, p. 205).

Childe's writing reflects the tension between early detection and lack of public education. While he explicitly claimed that the book was for medical practitioners, he asserted: "...it is better even to alarm the public than to stand idly by and see the public commit involuntary suicide" (Childe, 1906, p. 9). Despite advocating awareness, Childe ultimately sided with British authorities. Medical leaders saw the public as "gullible and emotional," and insisted a public education program would do more harm than good (Toon, 2007, p. 118). Childe's final solution was a "top-down" approach, stressing the need to inform doctors, rather than patients, about the signs of cancer (Childe, 1906, p. 230).

This attitude persisted through the interwar period, with Britain against public awareness campaigns like those used in the United States (Toon, 2007, p. 117). The British Empire Cancer Campaign (BECC), founded in 1923, was the central institution of cancer knowledge for interwar Britain, and along with the Ministry of Health, set the agenda on cancer education. While the United States' medical establishment relied on scare tactics to effectively encourage citizens to visit doctors' offices, Britain's officials worried their nationalized medical structure could not accommodate a massive influx of patients (Cantor, 2008, p. 120; p. 164). Cancer organizations "saw the public as a fickle entity that needed to be managed both for its own benefit and for that of the organizations" (Cantor, 2008, p. 10).

The establishment also feared the lack of treatments for those with cancer. The few solutions at the time, mainly surgery and radiation, were not always successful. To the medical leaders, "hope could [...] become a problem if it generated unrealistic expectations about the possibility of a cure" (Moscucci, 2010, p. 366). Because the BECC refused to consider public outreach, newspapers were often the only outlets for medical information about cancer, even recognized as such by officials. Childe advocated dissemination through newspapers, but also warned of over-reliance:

"The cure of cancer has been times out of number proclaimed to the public in the lay press, though it was quite unknown to the medical profession [...] we see immediately in the columns of some of the daily papers a sensational article under the heading, 'Cancer Cured at Last,' 'The Death-blow to Cancer'" (Childe, 1906, p. 242–246).

Childe worried that the public would interpret newspaper reporting as true medical opinion, even if the medical community had not reached consensus (Childe, 1906, p. 243). The medical profession did little to prevent public exposure to potentially misleading information, distancing themselves from the lay press during the late nineteenth and early twentieth centuries, and instead relying on their own medical journals to circulate information within the profession (Nathoo, 2009, p. 36). By confining controversy to their own journals, medical practitioners could appear united in the lay press.

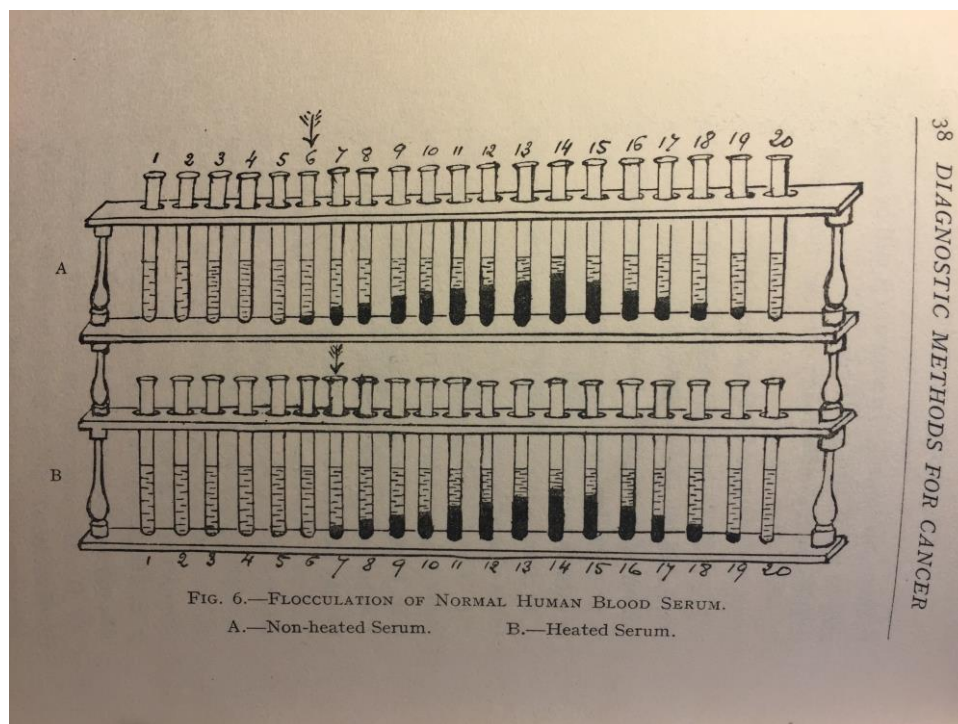
During the 1920s, cancer was part of "health's traditional environmental view of public health concern" still hypothesized as a contagious disease (Domenech and Castañeda, 2007, p. 1564). The government therefore did not fund cancer research directly, thinking it was pointless to finance a project with no solution. However, some researchers persevered enough to gain recognition in both medical and public circles (Fletcher, 1932). Dr. J. A. Shaw-Mackenzie began his work on diagnostic tests for cancer around the same time as Bendien. By 1931, he was working at the Ross Institute and Hospital for Tropical Diseases in London. While Shaw-Mackenzie was more hesitant to promote his work in the lay press, a Yorkshire newspaper quoted him in 1931: "taking my two tests together it can be stated definitely whether or not a patient has cancer" ("Cancer Diagnosis," 1931b, p. 8). Bendien, however, was unusually active in seeking press coverage.

### 3. Dr. Bendien's Cancer Research

By the 1920s and 1930s in Britain, "science journalism" became a recognized field. Though generally produced by non-specialists, articles often presented the medical community as noble and necessary (Nathoo, 2009, p. 38). Media coverage adhered to the model of paternalistic care, believing that doctors should be trusted with choosing the best treatments for patients (Nathoo, 2009, p. 37). Disseminated and understood through newspaper reporting, coverage of the Bendien test represented overlap between medical and lay press.

Dr. S. G. T. Bendien began his work on diagnostic tests in the 1910s at the Zeist Serological Laboratory in Holland. During the next decades, Bendien published his studies in Dutch and German, with his most significant work, "Spezifische Veränderungen des Blutserums" ("Specific Changes of Blood Serum") published in 1931 ("Letter from 'F.H.K.G.' to 'Sir,'" 1931). Bendien believed cancer was influenced by heredity, and needed both extrinsic and intrinsic factors to proliferate (Miller, 1931, p. 23). He therefore worked on a test that would identify both present cancer and the likelihood for future disease. He developed the test based on his belief that disease could be identified in the blood long before any visible symptoms ("Cancer Diagnosis," 1931a, p. 9).

**Figure 1.** From A.A. Miller's 1931 book, *Bendien's Diagnostic Methods for Cancer and Principles of Treatment*. The caption reads: "Fig. 6.-Flocculation of Normal Human Blood Serum. A.- Heated Serum. B.- Heated Serum." In A, the arrow indicated flocculation beginning in tube 6, while the arrow in B indicated flocculation beginning in tube 7. Bendien believed these tubes indicated disease and severity.



Bendien's test relied on two stages: chemical and spectroscopic. After the 1920s, individual surveillance, a hallmark of clinical medicine, replaced a focus on external factors of disease, and Bendien followed this trend by focusing on patients' blood samples (Domenech and Castañeda,



2007, p. 1567–1568). A November 1931 article in the American *Science News-Letter* described Bendien's test for its readers:

"In the chemical test twenty tubes containing equal amounts of serum are treated with sodium vanadate in acetic acid solution of varying strength and hydrogen ion concentration [...] with normal serum flocculation [formation of small clumps] begins in the sixth tube. With serum from patients suffering from cancer, tuberculosis and one or two other diseases, flocculation takes place in earlier tubes" ("Bendien Cancer Test Called Unreliable," 1931, p. 351).

Bendien was further able to determine which disease a person was suffering from by dissolving a precipitate and using a spectrograph to determine different absorption rates. The doctor thought he could determine the severity of a patient's cancer by examining the "intensity of the patient's serum," the patient's blood sample as measured in his test apparatus (Miller, 1931, p. 41). As seen in figure 1, Bendien advocated for the identification of "cancer predisposition" by the "altered electric charge of the colloidal particles of the serum" (Miller, 1931, p. 23). By measuring which tube the blood began to flocculate, a cancer patient, who would have been unaware of any possible ailment, could be diagnosed.

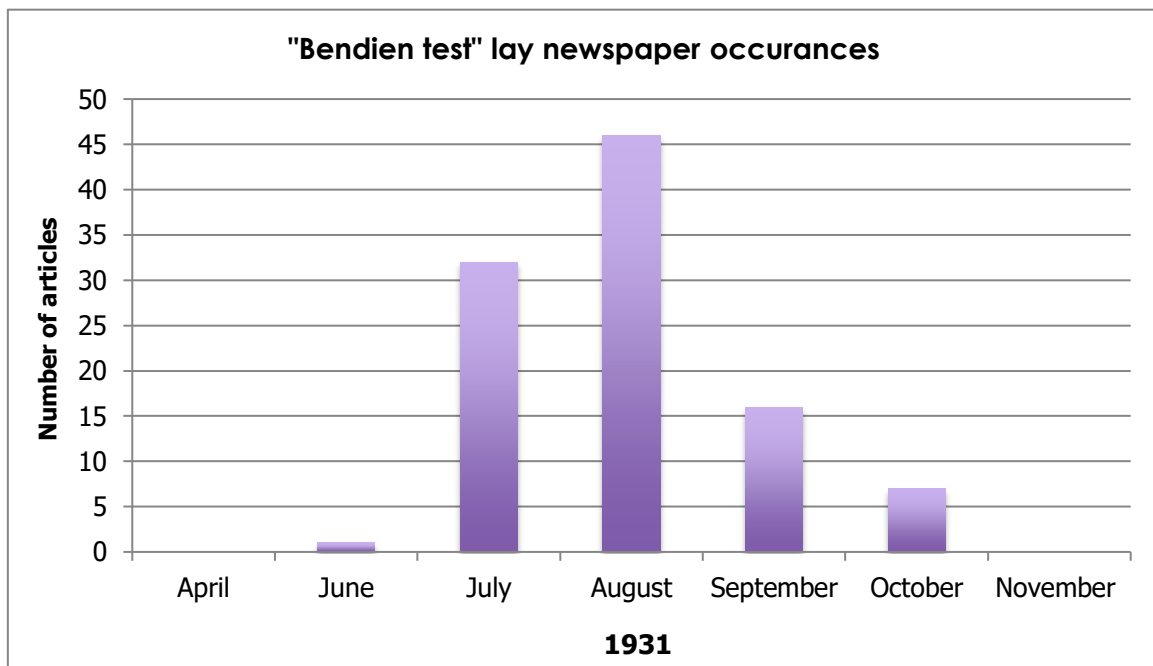
While he had been positively received, Bendien required more financial support, and wanted to capture public interest. In a letter from May 1931, Dr. Bendien wrote W. N. J. Van Ditmar, a British press correspondent: "I cannot continue my work without financial help... I only want to rouse interest... and this can only be done effectively in the press" ("Letter from Dr. S.G.T. Bendien to W.N.J. Van Ditmar," 1931). Van Ditmar then wrote to Dr. Wilson, the medical correspondent of *The Times* saying, "I have received a copy of the booklet by Mr. Bendien... Although I understand that it is impossible for the 'Times', to take this matter up, as long as it has not been accepted by the medical world, I am sending you a booklet, which has been received with enthousiam [sic] in Holland" ("Letter from W. N. J. Van Ditmar to Dr. Wilson," 1931). Van Ditmar hoped Dr. Wilson would circulate Bendien's work, with the eventual goal of informing the public of the test. While he realized the unwritten restrictions placed upon the lay press from medical authorities, Van Ditmar still encouraged publicity of Bendien's work.



#### 4. Bendien in Print: Medical and Public Newspaper Press

The news of Bendien's research did percolate to the medical community, evidenced by a letter from a British doctor in May 1931 stating "his work is disregarded by the profession... he ought to have more financial support" ("Letter to 'Gye'", 1931). Soon after this in June, Bendien's research was first published in the *Lancet*. The article focused on the test's technical aspects and declared: "So far... there is little evidence that the reaction is clinically specific for cancer" ("A Serological Test for Cancer", 1931, p. 1096). While the medical community had not planned to release news of Bendien's diagnostic work to the public, the story broke in newspapers across the country in July and word spread throughout the next few months, initiating a give and take between the medical community, lay press, and general public.

**Table 1.** Coverage of the Bendien test in the lay press was largely limited to July through October 1931. I used the online British Newspaper Archive, because while not a complete database of all British newspapers, is an extensive collection of digitized British newspaper articles.



Source: own elaboration.

The first mention of the Bendien test to the public was in the *Lancashire Evening Post* on 20 June 1931. The focus of the article was Dr. Werner Kaelin, a British cancer researcher, who had developed a purported cure for cancer from mistletoe. Kaelin's work employed a blood test, and the *Post* referred to Dr. Bendien as a foreign doctor also attempting to solve the cancer problem through a blood test ("Mistletoe and Cancer," 1931, p. 4). At the end of the next month, the secretary of the Investigation Committee of the BECC, Dr. Alfred Piney, travelled to Zeist, Holland to observe Bendien's methods ("The War on Cancer," 1931, p. 6). Table 1 demonstrates that Piney's travels and initial reports of Bendien's work received fairly wide coverage, appearing in newspapers around the Britain ("Cancer Caution," 1931, p. 4; "Dr. Bendien in London," 1931, p. 6; "The War on Cancer," 1931, p. 6). The *Lancashire Evening Post* even noted that "perhaps overmuch publicity has been given to what has been achieved [...] Between diagnosis and cure a big gap has yet to be bridged" ("Cancer Caution," 1931, p. 4). While overall optimistic, articles like this one did attempt to temper excessive public enthusiasm. However, the paper did trumpet that the "war on cancer knows no national bounds," and soon after Piney's travels to Holland, Bendien came to Britain for further testing on cancer patients ("Cancer Caution," 1931, p. 4).

Upon arriving in London, the *Dundee Evening Telegraph* reported that Bendien was "very glad to have this opportunity of explaining my work to your British experts. I have received much encouragement from this country and that makes it an especial pleasure to come here" ("Dr. Bendien in London," 1931, p. 6). At the station, Bendien's brother, who worked in London, greeted him, with newspapers deeming his arrival a "family affair" ("Dr. Bendien in London," 1931, p. 6). While Bendien seemed grateful for the interest of British medical authorities, representative of international cooperation, the article ended with a focus on British cancer researchers rather than Bendien's work, revealing remaining nationalistic tensions.

The next few months were filled with numerous positive reports of Bendien's work in Britain. *The Manchester Guardian* first mentioned the Bendien test after the initial wave of interest with Piney's journey to Bendien's laboratory in Zeist. On 28 July, the newspaper ran an article on Piney's visit, but emphasized the BECC's authority. Half of the article was a quote from the BECC, who reported that they had been investigating Bendien's test by evaluating blood samples from twenty-one patients at a London hospital. The newspaper informed readers that the test not only correctly identified those with cancer, but also discovered a case of cancer that had been missed by other doctors. While the article ended with a moderate caution that "some time must elapse before the full value of the method can be obtained," the overall tone of the article was decidedly positive ("The Diagnosis of Cancer," 1931, p. 9).

Despite this potentially great advance in medicine, the BECC was still hesitant to give too much hope to the public, ending with an emphatic plea to readers to “lay emphasis on the fact that this blood test is for diagnosis and diagnosis alone” (“The Diagnosis of Cancer,” 1931, p. 9). This ending line belies the BECC’s true concern, to protect the reputation of the medical establishment and avoid a public controversy. A few days later, the *Guardian* featured another positive report about a more extensive trial with one hundred samples from the Fulham Cancer Hospital in London and the Middlesex Hospital in Manchester. Dr. Piney, from the BECC, explained that “[e]ven if only the diagnosis is proved to be correct, a great advance will have been made” (“Dr. Bendien in London,” 1931, p. 16).

Newspaper coverage of Bendien’s test reflected an optimism that was not present in medical literature. Both the *Lancet* and the *British Medical Journal (BMJ)* showed dissenting opinions from British doctors throughout 1931. On 1 August, the *Lancet* reproduced the 28 July article that had appeared in the *Guardian*. While almost the entire *Lancet* article was a reprint, it stressed plans to carry out further tests: “It is obvious that this preliminary test is not adequate to establish a method of diagnosis, and that a much larger series of tests... also of patients suffering from a variety of other diseases, will have to be made” (“A Diagnostic Test for Cancer?,” 1931, p. 265). Printed in a medical journal after the original *Guardian* version, this cautionary message was not intended for public consumption.

Further, some in the medical community believed the lay press manipulated the story of Bendien’s work. A letter from 5 August 1931 claimed both the “Press [...] and some of the Campaign people” had exploited Bendien’s work for their own ends (“Letter to ‘Dr. Lumsden,’” 1931). The doctors who had been responsible for bringing Bendien’s work to Britain felt the BECC had taken advantage of Bendien to advertise Britain’s efforts and their own cancer work. Despite this negative view of lay coverage, those in the medical community supported Bendien’s efforts, even while they did not necessarily feel his test had been proven adequate (“Letter from Campbell Smith and Holiday to Sir Walter Fletcher,” 1931).

By the end of August, newspapers were reporting the controversy surrounding the test already present in medical literature, sometimes creating controversy of their own (“Bendien Test for Cancer,” 1931, p. 6; “The Latest Cancer Discovery,” 1931a; 1931b). Dr. Roy Kerr, member of the Manchester Medical Council, visited Bendien’s research laboratory in Holland. Soon after his trip, the *Sunday Express* contacted him for an article on Bendien’s research (“Letter from Dr. Kerr to Medical Society,” 1931). The article from 30 August presented Bendien as an overworked doctor who told the paper: “I am tired out, and nobody has offered to help me. Every day doctors come to see me [...] I am worn out by these endless discussions” (“Dr. Bendien to Stop,” 1931,

p. 1). Dr. Kerr attempted to retract the information he had given, but it was printed against his wishes, and Kerr claimed less than a week later in a letter to the Medical Society of Manchester, "This matter has embarrassed me very much and I regret it extremely" ("Letter from Dr. Kerr to Medical Society," 1931). In contrast, a 31 August story in the *Guardian*, "Bendien System to be Tried in Manchester," Dr. Kerr trumpeted Bendien's efforts and encouraged further tests at Manchester. However, the article noted: "...he regarded this work as an independent trial of Dr. Bendien's system, and was quite unable to say what the results would be" ("Cancer Diagnosis," 1931c, p. 11). While the article was still optimistic, Dr. Kerr seemed interested in rigorously testing the viability of Bendien's research. These two stories for different newspapers, a day apart, reveal the differing emphasis that could result from quoting the same doctor.

The first serious criticism of Bendien's test in medical literature was reported in the *Lancet* at the end of August, and came from Drs. F. Campbell Smith and John Marrack, at the Hale Clinical Laboratory in London, in cooperation with Dr. E. R. Holiday. They pointed out problems with the spectrometric step of the test, challenging Bendien to respond to their claims. In a subsequent issue of the journal, the same doctors reported that "no reply" had been made (Campbell Smith and Marrack, 1931, p. 715). They voiced concerns about Bendien's research generally, and ended by stating: "we feel justified in questioning whether there is evidence that any part of Bendien's test gives information of value in connexion with cancer" (Campbell Smith and Marrack, 1931, p. 715). Other doctors felt Campbell Smith and Marrack were well-qualified, and generally supported their efforts to investigate Bendien's test ("Letter to Campbell Smith," 1931; "Letter to 'Ellis,'" 1931). By early September, these supporters were convinced that Campbell Smith and Marrack had definitively proven the test's inefficacy ("Letter from 'Dr. Dale' to Sir Walter Fletcher," 1931). An official article was released later in the *BMJ* on 10 October 1931 stating clearly, "The Investigation Committee [...] has come to the conclusion that the Bendien method of diagnosis for malignant disease cannot at the present time be accepted as reliable" (Gordon-Watson, 1931).

While there seemed to be dissenting reports among newspapers throughout September, including a *Guardian* article which quoted Dr. Piney saying: "I am [...] under a pledge of secrecy not to divulge the results until the meeting of the Investigation Committee of the British Empire Cancer Campaign on September 14," by the end of the month, the lay press widely reported that the test was a failure ("Cancer Research," 1931, p. 14). On 25 September, the *Nottingham Evening Post* warned: "scientific caution is well justified in such a case as this [...] for the health and happiness of many depend on no conclusions being published until they have been found to be fully justified, and on any chance of success being followed up without prejudice" ("Bendien

Cancer Test," 1931, p. 9). Newspapers wanted to provide information but also to protect their reputations.

## 5. Failed and Forgotten?: After 1931

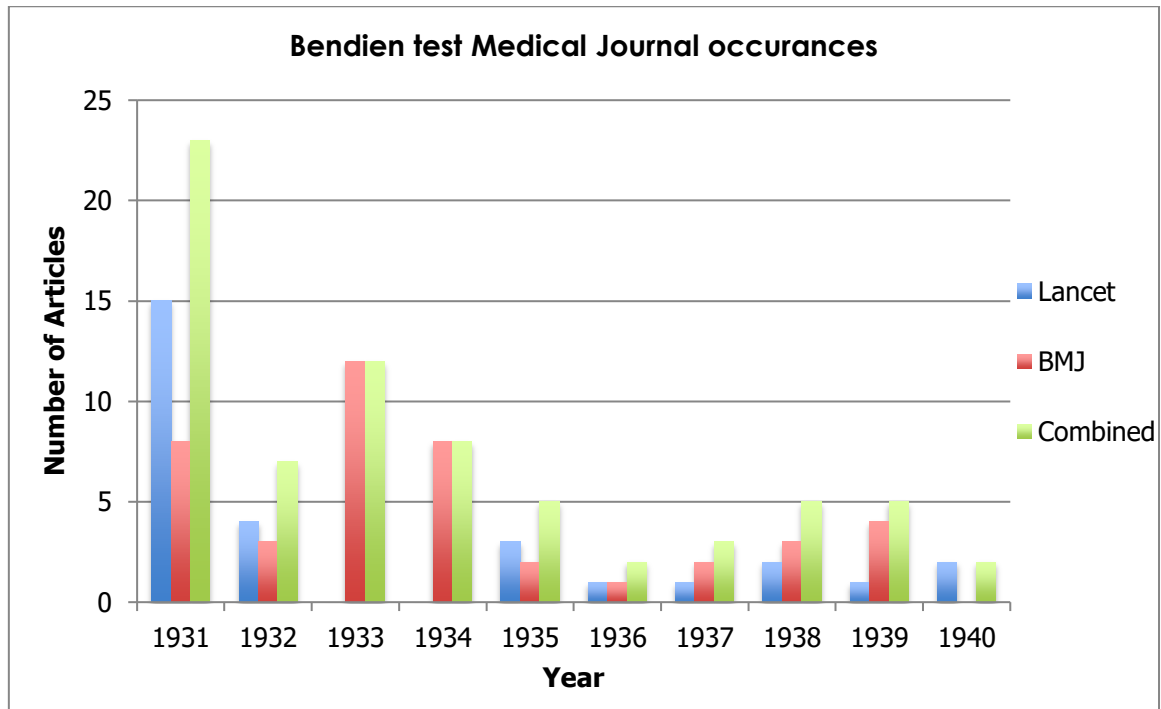
The end of Bendien test coverage did not deter praise aimed at the BECC. In a 2 September article, the *Tauton Courier and Western Advertiser* reported, "while the result will cause great disappointment in medical circles, it will not interfere with independent inquiry being conducted by the BECC" ("Cancer Cure Claim," 1931, p. 10). Years later, in 1933, the *Leamington Spa Courier* reported that Bendien's test was a failure because it was only Bendien himself that could produce correct results, and the BECC wanted a test that could be used by "laboratories and can be worked out by ordinary lab workers," marking a movement toward educating general practitioners of cancer science ("Local Doctor's Views on Latest Development," 1933, p. 7).

Despite its reported failure, British doctors continued to work with Bendien's principles, claiming improvements on his original research ("An Advance on the Bendien System," 1933). Table 2 demonstrates the continued inclusion of Bendien's ideas throughout the rest of the decade.

The publicity surrounding Bendien's test allowed diagnostics to increase the public visibility of cancer treatment. Similar to the Pap smear in the United States, the technology of the Bendien test represents a "boundary object" that intersects the British medical world and media (Clarke and Casper, 1996, p. 603). The test represented a new way to categorize "cancer" and "cancer patients," a historical struggle with cancer treatment, by claiming to reveal previously unidentifiable cancer cases (Löwy, 2010a, p. 54). In 1933, Dr. E. Cronin Lowe published an article in the *BMJ* titled "A Quantitative Modification of the Bendien Reaction in Sero-Diagnosis of Malignancy." The article gained credibility, and Dr. Lowe was asked to speak before the Medical Research Council ("Letter from Medical Officer of Health to Sir Walter," 1933; "Letter to Fletcher," 1933; Lowe, 1933). While doctors purposefully kept reporters ignorant of this research because of the "insidious [sic] methods of the lay press in regard to the Bendien business," the work of Dr. Lowe did make news in some local papers, revealing a continued link between the medical and lay press ("Treatment of Cancer," 1933, p. 1). In a 1935 *Lancet* article, a team headed by Dr. J. Round addressed the journal with a "test for cancer on Bendien's lines by the use of urine

instead of blood” (Burford et al., 1935, p. 1377). While the doctors claimed a urine test was preferable medically, they pointed out that the “patient also prefers this method to having blood taken for a vein,” indicating a shift toward patient care (Burford et al., 1935, p. 1377).

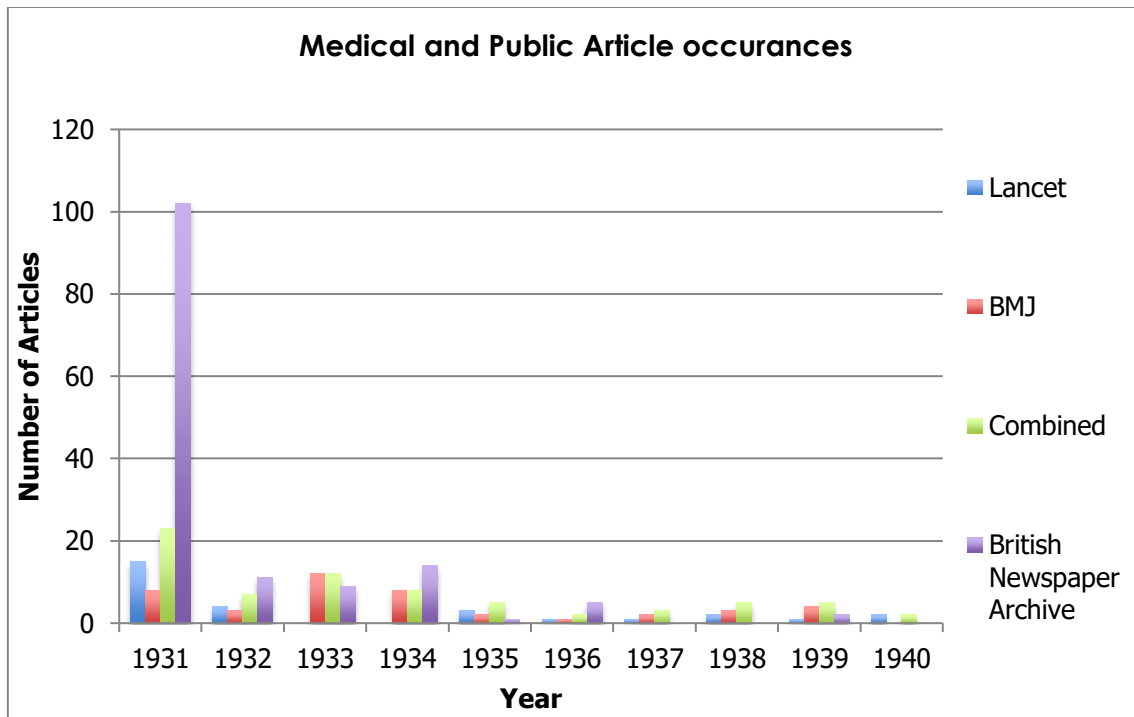
**Table 2.** The largest number of articles about Bendien’s work was concentrated in 1931, but references in medical literature of Bendien’s principles continued throughout the decade.



Source: own elaboration.

Cancer organizations were slower to change. British leaders still doubted the public’s capacity for cancer education and deliberately avoided public education until the 1960s, believing “medical discussion belonged in medical journals and conferences” (Nathoo, 2009, p. 55). Efforts at public education began in the 1950s, but the medical establishment adopted a “top-down” approach where they sought to better general practitioners’ diagnostic skills rather than fund public education programs, following the advice given by Charles Childe half a century earlier (Cantor, 2008, p. 125). Beginning in the 1960s, British authorities began to invest in public education, when patients viewed themselves as active consumers and demanded more information about healthcare options, rejecting the patriarchal model from earlier in the century (Cantor, 2008, p. 137; Mold, 2015).

**Table 3.** Bendien's test gained popularity in newspapers for the few months after word was first received, but after reports from the BECC claimed the test was not reliable, Bendien's name was barely mentioned in the press. After 1931, he was only mentioned in reference to further work by British researchers.



Source: own elaboration

## 6. Conclusion

Blood tests for disease have persisted today, and diagnostic tools for cancer are also still in development. The Bendien test represents a case of blurred boundaries between public education and medical advancement, a tension still present today. A recent *Telegraph* article reported a new self-diagnostic scheme for cancer, giving authority to patients by allowing them to by-pass doctors and refer themselves for hospital tests, contrary to Childe's recommendations in his 1906 book (Donnelly, 2015). The article empowers readers by informing them of their options, like the coverage of the Bendien test from the 1930s. However, the lay source still tends to hold less authority than medical journals.



Table 3 demonstrates that coverage of the test was briefly concentrated in public newspapers in the summer of 1931, but its resulting controversy reflects the wider tensions between paternalistic medical practices and the public's demand for medical information. Historians have tended to focus on therapeutic technologies, yet this previously unstudied diagnostic tool represents a cross-cultural phenomenon of medical reporting. Bendien's test did not adhere to the same restrictions placed on British doctors because he was based in Holland, and British newspapers capitalized on this loophole, overcoming medical silence to report on the promise of a Dutch innovation. Non-specialists lacked access the official channels of cancer science, and therefore needed newspapers to report medical advances. In turn, journalists relied on medical authorities as sources for their articles, but because there was no official public cancer education campaign during the 1930s, the lay press became the public's authority on the Bendien test in 1931.

The medical community may have wanted to distance themselves from what they considered to be an illegitimate source and limit discussion of cancer science to the medical community, but newspapers provided the demanded coverage of cancer developments. The lines of authority over cancer science coverage became blurred as medical journals engaged with lay press, and this interaction continued at least for the rest of the decade. Tensions surrounding coverage of medical research are still echoed today in the continued developments of cancer science, where those in the medical community, rather than the lay press, often feel pressured to proclaim their advancements, sometimes prematurely (Glaser and Taylor, n.d.). Coverage of the Bendien test does not only provide a way of understanding the British attitude of medical reporting during the interwar period, but also a way to explore the complicated relationship between authority and dissemination of specialized knowledge to the general public.

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