

MEDICALISING MINERS? MEDICINE, CARE AND REHABILITATION

In a lecture to the Oxford Ophthalmological Congress in July 1915, Dr Frank Shufflebotham, a doctor and medical referee in the workmen's compensation system, pressed the case for increased interest on the part of the medical establishment in the causes and consequences of illness and injury among coalminers:

I venture to think that never was there a time in the history either of medicine, or of this country, when it was more important to consider from a medical point of view the amount of damage done to the workers by accident and disease in ordinary course of their employment ... I do not think that sufficient attention has been paid by the medical profession as a whole to the conditions of employment in this country, at all events, by those whom we have regarded as the leaders of the profession.¹

The speech, though focusing mostly on eye diseases, encapsulated an intensifying medical scrutiny of workers, and especially miners, in the first half of the twentieth century. Shufflebotham was himself a major figure in medical research into coalminers, one of the growing number of experts who delivered lectures, participated in debates and published research articles in specialised journals about industrial injuries and diseases in this period.² The 'medical profession' displayed ever greater interest in the bodies of miners, in their sickness, injuries and disabilities, and in efforts to return them to work as soon and as far as possible.

This chapter examines the role of healthcare services, medicine and the medical profession in relation to disabled people in coalfield communities. Members of the medical profession had an important role to play in coalfield communities and, while the extent of their involvement in the lives of disabled people varied from one type of disability to another, it nevertheless increased over time from the late nineteenth to the mid-twentieth century.

This attention to medical services and this idea of medicalisation is not unproblematic from a disability studies perspective, and the ways in which medical history and disability history differ require careful consideration. Ever since the development of the 'social model' of disability from the 1970s onwards, and its use to challenge and replace the 'medical model' in explanations of disability, medicine's role in the lives of disabled people has been profoundly controversial and has given rise to significant criticism and suspicion. According to its critics, the medical model locates disability in the biology of individuals with congenital or chronic illness, bodily impairments or other departures from 'normal' bodily functions. The model defines such bodily states as pathological problems that require medical interventions in order to correct deviant bodies and return the impaired individual to normalcy, or else as close to it as possible.³ In this model, medical professionals are implicated in a system that marginalises and oppresses disabled people because diagnosis involves a judgement of deviation from the norm, while the increasing commitment to a concept of cure in modern medicine also reconfigured people with incurable impairments as aberrant.⁴

Crucial here, too, is the concept of medicalisation. As used in medical sociology and medical history, medicalisation refers to the process by which medicine increased in influence and authority in the nineteenth and twentieth centuries. It refers to the extension of medical authority over more aspects of daily life and the reconceptualisation of previously social issues as medical problems that necessitated medical interventions.⁵ Such medicalisation privileged 'objective' medical expertise at the expense of lay, patient illness narratives. This led to the creation of significant power differentials as the autonomy of the sick or injured individual was subordinated and they were forced into a passive, dependent sick role that necessitated the unquestioning acceptance of the doctor's opinion.⁶ Disability scholars share many of these critiques of medicine within their conception of the 'medical model' and extend this analysis to assert that medicine performed an important role in capitalist society in the modern period. It did this through the institutionalisation of impaired people in hospitals, workhouses, prisons and asylums, thereby freeing more people to engage in capital modes of production, and by assisting the categorisation of bodily ability for the needs of a capitalist economy through welfare and compensation systems.⁷

For these various reasons, as Beth Linker has noted, disability studies scholars and disability historians have been reluctant to give too much prominence to medicine in their work for fear of reinstating a medical model in place of the social model that emphasised prejudice, stigma, social and economic structures, the design of buildings and spaces, and other factors in the disabling of people with impairments.⁸ In addition, many disability histories have focused on 'healthy

disabled' people or the 'predictably impaired', whose impairments were fixed, permanent, in no need of medical treatment. This approach, however, neglects a large proportion of disabled people and, as Linker states, 'More historical attention should be paid to the unhealthy disabled, those who because of chronic pain, deteriorating health, and threat of death may need, experience, and even seek out frequent medical interventions.'⁹ The history of healthcare and medical provision has its place in the history of disabled people, therefore, since sickness and injury that were secondary to the particular impairment were common experiences, and disabled people consulted doctors, were admitted into hospitals and underwent treatment or rehabilitation.

In the context of coalmining communities, the process of medicalisation was underpinned by the development of medical understandings of coalminers' health and bodies, the creation and dissemination of a body of expert knowledge and the emergence of a group of specialists who came to assume a degree of authority and power in the field. This movement did not carry all before it, and medical authority continued to be partial, contested and subject to lay influences, even by the end of the 1940s; but there is little doubt that the medical profession took greater interest in miners' well-being during the period and that it succeeded in gaining some power and authority over their bodies. This was reflected in literary depictions of medical examinations and in portrayals of doctors as heroes or, more negatively, as gatekeepers in the pay of the colliery owners in compensation disputes. By the 1930s and, especially, the 1940s, medical, rehabilitation and convalescent facilities dedicated to the needs and well-being of disabled miners were established across Britain's coalfields, though provision was patchy and on a small scale. However, the treatment of disabled miners within such services was not an unalloyed blessing and tended to infringe on the autonomy and well-being of such men.

The miner's body

By the turn of the twentieth century coalmining had long held a real fascination for the British public. From the mid-nineteenth century countless human-interest articles or more technical studies, published in the flourishing popular periodical press of that period, attempted to explain the nature of the work underground to an interested British public. Apart from the rather macabre fascination with colliery disasters and other accidents that imperiled life and limb, attention to the perceived distinctive character of the miner's body was notable in these studies and helped to establish the miner and his community as people and places apart. The miner's body was sculpted, it seemed, by the conditions in which he laboured, and allowed him to operate in the unique working

environment found underground. Writing in the early 1860s, for example, J. R. Leifchild opined that 'his stature is rather diminutive, his figure disproportionate, his legs more or less bowed, his chest protrudes, and his arms are oddly suspended ... In all these particulars we note the hereditary features of a class working in darkness and in constrained positions.'¹⁰ Almost a century later, Ferdynand Zweig observed that miners constituted 'a physical type of their own' and offered a similar description to that advanced by Leifchild. The miner, he wrote, is 'strongly built, broad-shouldered, and short', with 'a tendency to bow-shaped legs', all of which were 'a sort of adaptation for the mines'.¹¹

This interest in physical distinctiveness was often taken a step further in the racialised discourse of the period in which, as Anne McClintock has argued, miners were represented 'as a "race" apart, figured as racial outcasts, historically abandoned, isolated and primitive.'¹² This specialisation is reflected in coalfields novels such as the suggestively titled *The Underworld* (1920) and *The Morlocks* (1924), an allusion to H. G. Wells' new species of workers evolved to exist wholly in subterranean conditions in *The Time Machine* (1895).¹³ The clearest sense of the miner as a breed apart can be found in a Welsh term, used by and about miners during the nineteenth century, that understood coal workers as 'tanddaerolion bethau' (literally, 'underground things', or 'underground beings') and distinguished miners from all other individuals, who were classed as 'daerolion bethau' ('ground things', or 'overground things').¹⁴ The miner's body was no less objectified by more sympathetic observers: George Orwell's description of these 'splendid men' with 'wide shoulders tapering to slender supple waists' and 'small pronounced buttocks and sinewy thighs' is perhaps the most famous example.¹⁵ Miners, and their bodies, therefore, were considered distinct and unique, both in the popular perception and by the professional groups who came to study them to an increasing degree. A short, curved, bowed-legged figure becomes a recognisable 'stock' feature, particularly in literature of the late nineteenth and early twentieth centuries: 'an auld pitman, if thee legs is a guide', remarks one observer in *Kitty Fagan* (1900).¹⁶ While bodily curvature is sometimes treated as an advantage (even an evolutionary advantage) to the miner for his work in small spaces, it is also seen as a 'grotesque' class- or race-related body type: 'the width of his shoulders and chest conveyed some idea of his enormous strength, but, like a wedge, his body dwindled grotesquely to the short, thin, bowed legs of the typical pitman.'¹⁷

For their part, miners viewed their own bodies in a rather functional manner and the idea that his body was the miner's capital was commonplace in the nineteenth and twentieth centuries. Again and again, the productive capacity of his body, and the extent to which it could allow him to make a living and support a family, were emphasised by the miner and his representatives. Harold

Heslop a miner, author and activist, shows how making money is tied to strength in *The Gate of a Strange Field* (1929), where the central character: 'had learned the greatest lesson of the mines – the lesson of strength. In the mines the weaklings are at a discount.'¹⁸ The muscular body of the collier can also represent wider industrial wealth: 'their strength will be turned into coal. Yes. Black lumps of coal which will be turned into gold at the docks ... It is the flesh and brains of our people that gives life to the world. Without them the world is dead.'¹⁹ In this example from Lewis Jones's 1939 novel *We Live*, the workers' bodies are fuel for 'the world' and 'gold' for the capitalists, but at the expense of the miner's body in both injuries and long-term health impairments. Even the archetypal 'big hewer', such as Big Jim of *Cwmardy* (1937) and *We Live*, cannot earn enough in the long term to provide for age-related impairments, or illness in the family. Jim's son Len, who has been out of work with pneumonia, argues that his father has no financial stability even after decades of work in which he has 'given [his] wonderful body to the pit', because 'when I lose a month's work because I'm too bad to go to the pit, we get in arrears with the rent and have to owe money for food.'²⁰ Scottish miner Tom Hanlin, who started writing coalfields fiction while in hospital, convalescing from a mining accident, similarly focuses on the precarious nature of work dependent on muscular strength, in which 'the world had hired [the miner's] muscles for the day':²¹

The fear of work that would be beyond your physical capacity, the meeting of conditions that would defeat you, expose you as unfit for this, the only work you knew in order to survive ... This is the fear that gets brutal work done, that breaks up the unity of the common man, this is his surrender to the greed and ignorance that builds glittering cities and demands a good life for itself.²²

As in the above example from Jones's *We Live*, Hanlin contrasts the wealth generated by coal for owners and, more broadly, for the British Empire's 'glittering cities' against the cost to the miner's body and disruption to political solidarity when faced with the fear of falling into poverty.

Importantly, the miner's body came to be politicised during the nineteenth century, and figured as a central concern in the industrial politics of the coal industry, perhaps as much as wages and hours.²³ At a general level, the 'toll of the mine' on the lives and limbs of colliery workers served as an important rhetorical weapon, wielded by miners and their representatives to exert pressure on a particularly *laissez-faire* group of employers who did little to improve the working or community lives of their workers.²⁴ More specifically, material relating to injury, occupational disease and disability was employed in detailed and technical debates on working hours, underground safety and, of course, workmen's compensation.

This politicisation of the miner's body reached its apogee in the 1940s as state-funded rehabilitation services, government-instituted research into miners' pulmonary disease, the nationalisation of the coal industry, the passage of a generous Industrial Injuries Act and the creation of the National Health Service effectively nationalised the miner's body and thereby gave it a status it had never previously possessed.

Medical encounters

Of all the various medical professionals and health services with which disabled miners came into contact, it was the general practitioner who was the most significant in terms of medical engagement with disability. On a prosaic level, it was significant because daily consultations with 'works surgeons' or 'colliery doctors' were far more numerous than any other type of medical encounter. This was perhaps inevitably the case, given that the doctor was the first point of call in any health-related situation, but it was exacerbated in coalfield communities by the relative paucity of medical specialists and institutional provision. Numerous surveys and investigations in the late nineteenth and twentieth centuries found that coalfields tended to be the least well-provided-for regions in terms of the numbers of general practitioners, specialists, hospital beds and specialised services.²⁵ In his semi-autobiographical novel, *The Citadel* (1937), A. J. Cronin, who worked in the south Wales coalfield as a doctor and was very bitter about the lack of facilities, has Dr Denny make a rather exaggerated speech:

Look here, Manson! I realise you're just passing through on your way to Harley Street, but in the meantime there are one or two things about this place you ought to know. You won't find it conforms to the best traditions of romantic practice. There's no hospital, no ambulance, no X-rays, no anything. If you want to operate you use the kitchen table. You wash up afterwards at the scullery bosh. The sanitation won't bear looking at.²⁶

Of crucial importance was the form of organisation that made provision for general practitioner services in industrial districts in Britain. A variety of different methods of 'contract medical practice' were utilised in industrial communities, including friendly societies, works clubs, medical aid societies, trade unions, private clubs set up by general practitioners and provident dispensaries.²⁷ Most schemes were based on a particular workplace or else covered a single community or a relatively small district, and so the defining feature was a proliferation of organisations and considerable variation in terms of the provision made by each scheme. The level of payments that brought eligibility (and whether

those payments were flat rate or graduated according to income), the inclusion of dependent wives and children, the numbers of doctors, the presence of paramedical personnel in the schemes, access to hospitals or other secondary services and a number of other areas of provision varied from one organisation to the next.²⁸

The characteristic form in the south Wales coalfield was the medical aid society, which was universal across the region, to the extent that friendly societies were benefit societies alone and did not provide general practitioner care as they did in other coalfields.²⁹ The medical aid societies were among the most robust and sophisticated of workers' medical schemes and involved lay committees of workmen's representatives – including, at times, disabled workers – which, in many instances, wrested control of the finances of the schemes from their employers during the late nineteenth and early twentieth centuries. Such control, in the instances where it was secured, was then exercised to engage medical personnel on fixed salaries, much to their chagrin and that of the British Medical Association, and to use excess funds to develop the provision made to members. The Tredegar Workmen's Medical Aid Society was the most famous example of the schemes in south Wales. It succeeded in enlisting almost the entire community in membership and providing members with general practitioner, physiotherapy, massage, dentistry and nursing services, in addition to access to the Society's own cottage hospital and a range of other, larger hospitals to which the society subscribed and a broad array of other medicines, medical comforts and surgical appliances.³⁰ In these organisations any process of medicalisation was driven by workers, their families and their representatives as much as by members of the medical profession.

In his autobiography, *Adventures in Two Worlds* (1952), A. J. Cronin claims that the Tredegar society influenced Aneurin Bevan and 'can definitely be regarded as the foundation of the plan of socialised medicine which was eventually adopted by Great Britain.'³¹ For Cronin's part, contemporaries widely regarded his novel, *The Citadel*, as helping to promote the socialist ideology that led to the founding of the National Health Service (NHS), but this has been disputed in more recent criticism which highlights the novel's pessimistic attitude to social systems and its idealisation of the individual.³²

Cronin's concern with nationalised medicine and the medical aid society model is not unique among coalfields literature of south Wales. Rhys Davies comments on both the advantages and disadvantages of the medical aid society (though it is not specifically named), mediated through the perspective of the middle-class political agitator Dr Tudor Morris, in *A Time to Laugh* (1937). Morris is wary about the influence of the mine manager over the panel doctors, believing that 'someone must stand unpurchased and unowned',³³ and yet he

also sees the advantages of the medical aid society and speaks at a Miners' Federation-organised event:

he nobly explained at length the advantages of the scheme. Everybody knew of families crippled through illness, physically and financially, in this place where disease and destruction were very active; and who knew what misfortune waited for the healthiest, going down the pit ...³⁴

Some miners in the audience are critics of the scheme, concerned that 'Several someones' going to get fat on it, doctors mostly ... 'specially those that's shareholders in the pits' and that 'the women will be running to the doctor every day, enjoying themselves and inventing bad things wrong with them.'³⁵ The emphasis on the risk of malingering is similar to Cronin's *The Citadel*, but Davies also highlights the suspicion of collusion between owners and doctors who may have a vested financial interest. In both novels the doctor is a heroic individual, trying to put their principles above financial interest.³⁶ The medical aid society is critiqued as worthy in principle, but potentially flawed because of the loss of the doctor's independence and a changed dynamic of entitlement that may encourage increased demands on the doctor's services, or even malingering.

In English and Scottish coalfields, other forms of organisation were more common. In Durham and Northumberland, for example, works clubs involved flat-rate payments of 6d. each fortnight (which the medical practitioners in the region pushed up to 9d. in 1899). Similar to their counterparts in south Wales, coverage included dependent family members.³⁷ Friendly societies also provided medical attendance in Durham as individual societies appointed medical officers or else groups of societies made joint provision; again, lay committees, elected by members, carried out the routine administrative work of these organisations.³⁸ John D. Milne, a doctor who graduated in 1944 and began practice in the mining community of Ormiston, East Lothian in 1946, remembered how insured workers in the community were all covered for panel practice³⁹ under the National Health Insurance system and miners paid an additional 6d. a week, for which they gained a free choice of doctor and coverage for their wives and children.⁴⁰ Indeed, the Scottish miners were covered under the National Health Insurance scheme through their trade union, as the Scottish Miners' Federation, similar to the Durham Miners' Association, became an 'approved society' for the administration of the scheme.⁴¹ Such club practices were able to provide a level of care that compared quite favourably with that secured by more affluent or even middle-class sections of the population. The MacAlister Report, which reported on Scottish health services in 1920, claimed that the 'the system provides for the miner and his family many, though of course not all, of the benefits of

continuous medical guardianship ... an able and energetic colliery doctor may assume a freedom of initiative and control in relation to the family health of his contract patients' not enjoyed by a counterpart who tended to private, fee-paying patients.⁴² Nevertheless, despite variations, each scheme had general practitioner services at its heart and it was from this particular medical professional that most disabled people obtained medical care.

Unsurprisingly, the patient lists of medical practices in mining communities were dominated by miners, and surviving practice records for colliery districts indicate that their injuries, illnesses and ailments formed the bulk of the daily work of doctors in these districts.⁴³ In her study of general practice in the century up to 1948, Anne Digby found that the vast majority of the cases that presented in colliery surgeries in coalfield districts consisted of chronic chest complaints and accident cases.⁴⁴ Doctors suffered excessive workloads in industrial districts and were not able to do much more than deal with the majority of cases in a perfunctory manner, in the shortest time possible: case histories were not taken, physical examinations were rare and the majority of patients were rapidly ushered out of the surgery with a prescription of stock medicines.⁴⁵ One doctor, who practised at Ebbw Vale, south Wales in the interwar period, stated in his autobiography that 'no-one was sent away without a bottle of medicine, whether they needed it or not.'⁴⁶ There were exceptions: Digby argued that the doctors in the Cresswell practice at Dowlais, south Wales retained 'their medical curiosity' and kept abreast of 'modern methods of diagnosis and treatment'. Fast patient throughput on routine cases allowed greater time for more complicated or more interesting cases, and higher standards of clinical care.⁴⁷

With the large workloads faced by colliery doctors and the short duration of consultations, not to mention the medical-model perspectives adopted by doctors, it is unsurprising that many disabled miners found a visit to the doctor to be a rather cold and impersonal experience. Will Arthur, a miner who worked in Mountain Ash, south Wales, contracted miner's nystagmus, such that his 'eyes were going around like saucers'. Interviewed in 1973, he described having to go to see two doctors in Cardiff and being

told to strip, taken in before these two doctors, one of them said 'Bend', so I 'Bent'. 'Up, up', and he called the other doctor and he said, 'Bend again', and I bent and he said, 'Up, up' and he said, 'Put your clothes on'. So I thought, that's that, and it was. He looked at what I had said, my name and all that, and he said, 'Miner', 'Yes'. 'Miners' nystagmus', he said, 'Oh', I said, 'Just a mild attack'. 'No good my boy', he said, so that was that.⁴⁸

That, indeed, was that. This particular consultation was for the purposes of an assessment to determine eligibility for compensation payments, but it is evident

that dissatisfaction with the quality of care received by miner patients was widespread and persistent.⁴⁹ Cronin's *The Citadel* argues from the other side that the colliery doctor had such a large caseload that it was 'impossible'⁵⁰ to fully examine every patient, especially the men coming in for certificates:

Andrew examined him, found him suffering from beat knee, gave him the certificate of incapacity for work.

The second case came in. He also demanded his certificate, nystagmus. The third case: certificate, bronchitis. The fourth case: certificate, beat elbow.⁵¹

The conveyor-belt nature of the consultations here dehumanises the doctor, while the patients are transformed into mere cases requiring 'certificates'. On the other hand, the relationship between a doctor and his patient could be an intensely personal one, and a kindness shown by a dedicated and sympathetic doctor could provoke intense gratitude and loyalty. Certainly a great many miners and members of their families valued the care and attention given to them by colliery doctors, and such doctors were considered important members of their communities and assigned a status similar to the local minister. Bert Coombes, never shy in his criticism of employers and others who exploited the labour of his fellow workmen, maintained that while there were doctors who were 'brutal and overbearing' in manner, these were only a minority, and that for the most part 'no praise could be overdone' for the majority of doctors in mining regions. Coombes claimed that doctors acted as 'confessor, clerk and general adviser to his people' and likened them to 'guardian angels'.⁵²

More than bedside manner, however, it was the effectiveness of therapeutic interventions that stood to have the greatest impact on the lives of disabled people, and here the medical story is, for the most part, one of failure. Nystagmus was 'treated' through removing the miner from the low light conditions that caused the condition in the first place. While symptoms lessened or cleared with that removal from underground work, miners were not 'cured', and would suffer a return of the symptoms if they returned to work in poor light conditions.⁵³ Nor did the treatments available for the care of miners with chest diseases make a material difference to the lives of these men. The absence of effective therapeutics lay behind Shufflebotham's assertion in 1914 that 'There is no disease to which the saying "Prevention is better than cure" is more applicable', and his advice was that the suppression of dust and the removal of the miner from the dusty atmosphere were the most important preventives, though he did mention pharmacological responses, particularly potassium iodide, nux vomica and ammonium carbonate, largely intended to ease respiration.⁵⁴ Little had changed by the mid-1940s, despite the considerable amount of research that had been conducted by that time, and C. M. Fletcher was forced to concede that

'With regard to therapeutic as opposed to prophylactic measures, we cannot offer cure'; palliative measures were all that could be offered by that time.⁵⁵ In the absence of effective treatments, miners with pulmonary disease were often sent for periods of convalescence in one of the many homes that came to be established from the second half of the nineteenth century. Coal companies, trade union branches, friendly societies and other organisations all subscribed to convalescent homes and sent miners diagnosed with 'silicosis', 'emphysema' or other complaints for a period of recuperation.⁵⁶ As such, convalescent homes were, until about the 1930s, more social than medical institutions, and did not involve much in the way of medical supervision or treatment. Another response was merely for the miner to absent himself from work on a regular basis in an attempt to manage his condition. Bert Coombes found in the 1940s that miners with chest disease absented themselves from work, perhaps for a day each week, in the 'hope to stave off the disease by losing time frequently and so clearing the lungs.'⁵⁷ Even in the early twenty-first century, chronic obstructive pulmonary disease is managed, rather than cured, through the use of inhalers, medicines and steroids intended to ease the symptoms and make breathing easier.

Therapeutic interventions were more numerous in relation to other disabling conditions of miners, but there is little reason to think that they were more effective. Fractures and crush injuries, especially to limbs, were common; while rest and recovery were sufficient for minor instances, others led to medical or surgical responses by doctors. In the opinion of some, amputation was far too common a response to the damage done to limbs in accidents. Welsh miner Jack Jones conveys this fear in his historical novel *Black Parade* (1935) when a miner remarks sceptically on the new hospital that: 'anything the matter – off it comes, that's why there's so many on crutches everywhere. A week last Tuesday I helped to carry Tom Roderick from the pit into that accident ward, and the next I heard was that they had taken his leg off.'⁵⁸ A short sequence of the records of the Highfield Public Assistance Institution at Sunderland reveals miners such as 'William L.', a 39-year-old miner from Shotton, diagnosed with 'necrosis' of the tibia as a result of a compound fracture a number of years previously, who was 'cured' through the amputation of the leg. The same fate befell a twenty-nine-year-old miner named John Nixon, who was 'cured' of a compound fracture of the ankle by the amputation of his leg, while Samuel Adlam, forty-two years old, was treated for a crushed hand through the amputation of his first finger.⁵⁹ The limited skills of some colliery surgeons, and the more general inability of orthopaedics to carry out the complex repairs to limbs that came in the post-war period, meant that amputation was often the easiest or, indeed, the only option. The medical view, which did not extend beyond

the immediate situation to consider the personal and social consequences of amputation, could conceive of such cases as 'cured'.

Miners' medical schemes were crucial in the provision of general practitioner services, but they were also important to disabled workers in a variety of other ways; indeed, it might be argued that they assisted impaired miners in more practical ways than did the practitioners who treated them on a day-to-day basis, though the extent to which this assistance was medical in character varied. In the first place, many workmen's schemes and organisations subscribed to a variety of institutions in order to gain access to the services in those places for their members. Many of the early grants from the Ebbw Vale Workmen's Doctors' Fund, for example, were to send patients for specialised treatment outside south Wales. Train fares to Bristol Royal Infirmary, Bristol Eye Hospital and Bath Mineral Hospital were all provided for those that needed them.⁶⁰ In the north-east of England, lodges of the Durham Miners' Association, similar to lodges in coalfield unions across Britain, subscribed to large voluntary hospitals and smaller cottage hospitals so as to secure letters of recommendation to allow members to be admitted, while their counterparts in the Mid and East Lothian Miners' Association subscribed to the Edinburgh Royal Infirmary to meet their members' medical needs.⁶¹ Again, medicalisation was as much driven by workers and their organisations as by doctors and the medical profession.

The workmen's medical funds were also active in the provision of prostheses and, given the large numbers of injuries to limbs, especially legs, and in view of the tendency for surgeons to 'treat' many injuries through amputation, artificial limbs were a particularly crucial area of provision. These were rarely provided by employers or hospitals directly, though some examples can be found: the Dowlais Iron Company (which also employed coalminers) kept an extensive 'Truss and Wooden Leg Register' between 1891 and 1902.⁶² At the same time the generosity of coal companies was limited, and instances arose where the company refused to pay for repairs or corrections to the limb.⁶³ More often, workers obtained artificial limbs through mutual aid, whether by means of friendly societies, medical schemes or merely ad hoc collections to enable an injured miner to purchase his own limb, rather than from the employer. In the short story 'The Benefit Concert' (1946) by Rhys Davies, Jenkin loses a leg to an infected mining-related wound but he receives no compensation from the colliery and is too fearful of the courts to pursue his claim. Consequently the local chapel offers to organise a benefit concert to raise money to buy an expensive prosthetic leg in steel and leather. However, the story is hardly to the credit of the chapel deacons, who, having raised in excess of what is needed, refuse to allow Jenkin to use the additional money to open a small shop, and instead refurbish the chapel, forcing him back into the mine.⁶⁴ In south Wales the

medical aid societies were important in supplying prosthetics to their members, and the societies' minute books are filled with instances of miners, and indeed members of their families, being provided with prosthetics.⁶⁵ Crucially, they were provided upon application by the members themselves rather than imposed on them by doctors, though, following a Foucauldian perspective, such instances of medicalisation from below were perhaps more total than any imposition by doctors from above.⁶⁶

The supply of an artificial limb did not end the schemes' involvement in the matter and it is clear that a degree of after-care was generally offered to impaired miners; the schemes often assisted the impaired individual with the fit of the artificial limb and with its maintenance in subsequent years. Some of the better schemes paid for members to travel to the workshops of artificial-limb makers to be measured properly for their limbs, arranged as many subsequent visits as were necessary to achieve the best fit, paid for repairs to older or damaged limbs and generally represented the disabled member in any dealings with the artificial-limb maker.⁶⁷ That is not to say that the generosity of miners' schemes was limitless: the finite resources of the societies necessitated attention to eligibility and to the adoption of a certain cost-consciousness in the choice of limb. In March 1897, for example, three applications were made to the Ebbw Vale Workmen's Medical Society, by two workmen and a woman. While one applicant was provided with a 'foot and socket leg' costing around £6 6s. 0d., the other workman and the female applicant were each recommended wooden legs costing £1 1s. 0d. each.⁶⁸

Medical aid societies did not limit themselves to providing artificial limbs. Other prosthetics and assistive devices were available, most commonly trusses, but also orthopaedic boots, surgical belts, spectacles and a range of 'invalid chairs'.⁶⁹ At the same time, new technology could be rejected for questionable reliability. The committee of the Ebbw Vale scheme refused to grant the full amount for an 'ear apparatus' for the wife of a miner 'who was very deaf' in October 1943. In addition to its being too expensive, the committee reported that 'these aural instruments were very rarely successful, and were more often than not discarded by the patients after a short time'.⁷⁰ Hearing aids were rejected several times by the Tredegar Workmen's Medical Aid Society, suggesting further scepticism of certain types of technology for deaf workers and perhaps a discerning attitude towards such aids that accepted only those devices that brought about an improvement in the everyday lives of disabled people.⁷¹ This perhaps suggests a potential dialogue between deaf miners about the wildly varying quality of contemporary hearing aids, much as the pages of the *Deaf Chronicle* and *British Deaf-Mute* separated useful technology from 'Swindles on Deaf people' by 'Quack doctors who profess power to cure deafness' with new gadgets.⁷²

Prosthetics are a crucial material piece of disability labour history. Many miners continued to work after being fitted with them, such as John Burt of the Fife Coal Company, who wore his 'pin and bucket' artificial limb while working on the motor haulage engine underground.⁷³ There are several references in coalfields fiction to miners with 'peg legs' working at the colliery, including underground, before the First World War.⁷⁴ These generally occur in novels of the 1930s and 1940s as a way of contrasting the pre-war buoyancy of the industry, which could 'even' find employment for the partially impaired, with conditions during the Depression. In these novels a high level of unemployment is also shown to allow a system where workers are easily replaceable by younger men, to the detriment of veteran miners with mining-related injuries and impairments. Clearly, a permanent disability did not necessarily mean ending work. Medical aid societies used the ability to work as a means to determine financial priorities and the amount to be paid for the acquisition of an artificial limb. In 1898 a rule was passed at the Ebbw Vale society to set the maximum cost of an artificial limb at £4, but to spend more if it would enable the worker to follow their employment.⁷⁵ Later that year an applicant was informed that the grants were 'not intended for cases of long standing but only related to cases of a workman who having received an injury necessitating amputation required an artificial limb to enable him to resume work'.⁷⁶ On the one hand, it might be argued that medical aid societies thus emphasised the moral and, perhaps, therapeutic benefits of work. On the other hand, they also worked to lessen the disabling impacts of impairment and attempted to enable disabled miners to continue with their working lives.

Membership of mutualist organisations could be quite strictly controlled, but they remained important to disabled people. Through such organisations, disabled people were recognised as central to the community and their particular needs were prioritised and, as far as possible, met. The Tredegar society resolved that 'a member, whilst disabled, is entitled to full benefits'.⁷⁷ More than that, disabled members were able to play a role in the administration of these democratic organisations and, in many instances, served on the committees that made decisions and set priorities. One member of the Tredegar Workmen's Medical Aid Society in the late 1930s, for example, utilised his own personal experience of wearing a prosthetic leg to offer informed advice on the limbs provided to members of the Society and his 'expertise' was drawn upon in other cases.⁷⁸ In these mutualist organisations, quite extensive levels of lay control, including the involvement of disabled individuals, were exercised over medical authority, and doctors were required to conduct themselves and their practices according to the strictures set down by workmen's committees.

At the same time, however, it is clear that these mutualist organisations were instrumental in the process of medicalisation as they looked to extend the reach of medical expertise over more aspects of the lives of greater numbers of people. Efforts were constantly made to increase the numbers of doctors who served on these schemes, to extend the types of paramedical services offered to members and to increase the number and types of medical comforts provided to disabled members. Such policy initiatives were guided by insights provided by disabled committee members and impaired ordinary members, and the medicalisation that occurred was driven by an informed view of the value of these initiatives in people's everyday lives. Doctors did not play a central role in these activities. They were involved only in the amputation of a limb; there was no medical management of stumps, nor medical intervention to assist with the fit of prostheses, which was done by the lay committee in negotiation with the artificial-limb company. Impairment in such instances was conceived in terms of a medical model by which prostheses replaced missing limbs and gave the impression of normalcy, but this was done through the agency of impaired people and under their own volition, arguably suggesting an internalised cultural pressure to 'pass' as able bodied.

While the medical interventions of general practitioners were of only limited value to the disabled miner or his disabled family members, primary care was still the most important medical arena in which impairment was addressed by medicine and where medicalisation took place. Nevertheless, it was not the only context in which disabled people were treated medically, and hospitals became an important institution in which disability was 'treated'. Voluntary hospitals, first initiated in the eighteenth century, grew in number and size from the latter decades of the nineteenth century, and individual institutions diversified as new departments were established and various specialist consultants were appointed to the honorary staffs.⁷⁹ Dependent as they were on voluntary support, hospitals tended to be founded first in more affluent or larger communities, and coalfields tended to lag behind in terms of hospital provision, despite the massive levels of need that existed as a result of injuries and occupational disease. Nevertheless, institutions, many of them cottage hospitals, came to be established in British coalfields during the second half of the nineteenth century and into the twentieth century, and disabled miners were treated in greater numbers.⁸⁰

Geographical factors, local cultures of paternalism and philanthropy and the strength and attitudes of regional labour movements all influenced the particular character of hospital provision in different coalfields. South Wales possessed sizeable voluntary hospitals in the larger, more socially heterogeneous towns in the region, such as Swansea, Cardiff and Newport, in addition to a large number of smaller cottage hospitals in individual mining communities

that were, to all intents and purposes, 'miners' hospitals.' Miners in the region utilised the smaller, local hospitals as accident centres and were referred to the larger infirmaries on the coast when more specialist care was required.⁸¹

In contrast, both the north-east of England and the coalfields in Scotland were more dependent on the larger infirmaries in nearby cities, especially Newcastle, Durham and Middlesbrough, and Edinburgh and Glasgow, respectively, for accident and consultant services, and workers were much less involved in the provision and management of their own cottage hospitals in those regions. The *British Medical Journal* noted in 1942, for example, that mining communities in Lanarkshire 'depended mainly on Glasgow for all hospital and outpatient treatment',⁸² while the Accident Report Book of the Scottish Mine Owners' Defence and Mutual Insurance Association, also relating to Lanarkshire, demonstrates that the majority of injured miners recorded were either taken to the infirmary at Glasgow or sent home.⁸³

These coalfields were not completely devoid of cottage hospitals, of course, and institutions such as Ashington Hospital and Ellison Hall Infirmary in the north-east and Blantyre Cottage Hospital and Randolph Wemyss Memorial Hospital in Scotland might be considered 'miners' hospitals'.⁸⁴ Indeed, the small Ashington Hospital, equipped with forty-four beds by the 1940s, was taken over by the miners and managers of the Ashington Coal Company in the interwar period and was staffed by a single medical superintendent, the company's surgeon, whom the company lent to the hospital on a part-time basis. The hospital was intended for the treatment of accidents and illnesses that afflicted the contributors and their families, and, with the exception of emergency accident cases, did not take cases from outside the ranks of its contributors until a handful of cases were admitted during the 1940s. Another small hospital was the Horden Cottage Hospital in Durham, which was initiated by the local coal company to offer rapid treatment in accident cases arising in the company's concerns; the institution possessed only six beds and later became a clearing station for accident cases that were sent on to larger hospitals, primarily the Sunderland Royal Infirmary.⁸⁵ Nevertheless, despite the existence of such small miners' hospitals in the north-east of England and in the Scottish coalfields, it remained the case that there were far fewer small or cottage hospitals than in south Wales, and injured miners in those other coalfields tended to end up in the larger voluntary hospitals in the major towns and cities of their respective regions. Whatever the precise character of hospital provision in each case, however, coalfields were nevertheless marked by a paucity of institutional provision relative to other regions, and a considerable amount of unmet need existed in this period.⁸⁶

Whatever the organisation of hospital services in each coalfield, it is clear that miners' organisations gained increasing power and influence in the

management and, even, control of medical services in the late nineteenth and early twentieth centuries and were able to have at least some influence over the ways in which these services attempted to meet their particular needs. Firstly, through subscriptions and donations, miners contributed to the finances of local hospitals; such payments were made either individually, through hospital contributory schemes, or collectively, through pit committees or union lodges.⁸⁷ Workmen's contributions had come to form an increasingly important element of voluntary hospital finances in the second half of the nineteenth century, and attempts had been made, with varying degrees of success, to secure and increase working-class representation on the hospitals' board of management.⁸⁸ In these important ways medicine was not just something that did things to miners' bodies, as a crude vision of medicalisation might have it; rather, miners themselves were crucial to the development of medical services and, arguably, to the extension of medical expertise over their own bodies.

A little surprisingly, perhaps, given the absence of effective medical treatments, some occupational disease cases were admitted into hospitals in mining regions in the late nineteenth and early twentieth centuries. Miners were admitted into Sunderland Infirmary suffering from 'Miners' Phthisis' and 'Miners' Nystagmus', and it is difficult not to conclude that the hospital acted as a place of convalescence in such cases.⁸⁹ Indeed, such cases were often transferred from the medical wards to convalescent homes as hospitals came to provide such facilities from the late nineteenth century onwards, as was the case with the Schaw Home, attached to Glasgow Royal Infirmary and opened in 1895–96.⁹⁰

More numerous than the cases of chronic occupational disease were the many accident cases admitted. By their nature, emergency accident cases necessitated immediate care and attention in a way that chronic afflictions did not, and large numbers of miners were transported directly to hospital after an accident, even if that meant a long journey from pit-head to sick-bed.⁹¹ Many such accident cases came under the care of consultant surgeons, and surgical responses were more numerous than medical.⁹² Many of the operations performed on injured miners were quite mundane in character and involved little more than procedures intended to clean a wound, drain an abscess or manage a hernia.⁹³ More complicated procedures were also performed, of course, and the degree of long-term impairment was greater in these cases. In the 1890s, W. E. Harker, surgeon at the Royal Victoria Infirmary, Newcastle, performed laminectomies on miners with spinal injuries, wired compound fractures and amputated limbs with crush injuries. These all involved greater or lesser degrees of permanent impairment for the miner involved.⁹⁴

Miners supported a range of other medical institutions also and, of all the specialist institutions to which support was given, it was ophthalmic hospitals

and blind charities that most benefited from the funding supplied by miners' organisations. This was undoubtedly because of the large amount of occupational blindness, eye injuries and diseases suffered by miners.⁹⁵ Large numbers of workplaces, most notably collieries, contributed towards the funds of the Glasgow Ophthalmic Institution, for example, and, by the early 1880s, the Institution received almost two-thirds of its income from workplaces.⁹⁶ In return, it admitted large numbers of miners with eye injuries for surgical treatment.⁹⁷

Impaired miners and medical knowledge: lung diseases, miners' nystagmus and orthopaedics

The period between 1880 and 1948 saw considerable changes in the medical profession's understanding of the miner's body. The dust diseases silicosis and pneumoconiosis and the eye condition nystagmus were two major areas of change in medical knowledge. Their histories provide clear insights into the consequences of medical and scientific research, not to mention the development of medical services, for disabled people in the modern period. In addition, the development of orthopaedics and its uses in the treatment and rehabilitation of injured miners, similarly had considerable implications for the lives and experiences of disabled people. Nevertheless, these three areas, pulmonary disease, nystagmus and injuries to limbs, here taken in turn, illustrate the varied and complicated nature of that process of medicalisation that is so important to the history of medicine and disability in the twentieth century.

The aspect of mining health most studied by historians, by far, has been the dust diseases that ravaged mining communities and which continue to have an effect in the twenty-first century, even after the closure of almost all British collieries.⁹⁸ Pneumoconiosis, caused by inhalation of the dust produced in the working of coal, has been recognised by historians as 'the most deadly and disabling of coal miners' chronic occupational diseases', and, indeed, 'the largest occupational health disaster in British history'.⁹⁹ Historians have studied the development of medical and scientific understanding of the disease, on the one hand, and the interactions between trade unions, employers and the state in the registration, control and management of the disease, on the other, but there has been little attention to the medical aspects of the disease in terms of miners' experiences or their interactions with medicine.

Dust diseases were slow to be recognised, or to be attributed to working conditions and acted upon by government and the medical establishment. In the nineteenth century many members of the medical profession were sceptical even of the diseases' existence. Dr Andrew Smart, a researcher into dust diseases based in Edinburgh, for example, told the 1885 Annual Meeting of the British

Medical Association that two years previously he had 'express[ed] the view that anthracosis, or "miner's [*sic*] consumption," had but a doubtful, if any existence.' Although now recognising anthracosis' existence, Smart still refuted the link between coal dust and disease, even suggesting that 'there must be some special protective feature in coal-mining operations not shared in by the rest of the dusty trades.'¹⁰⁰ Even by the early twentieth century doctors could be found who insisted that coal dust was beneficial to miners, and even that it was the dust that gave Welsh miners their excellent singing voices.¹⁰¹ These erroneous views reached the popular imagination. In 1902 the bestselling novelist Allen Raine remarked: 'Fortunately for the colliers it [coal dust] is not unwholesome, or their lives would be seriously endangered by the clogging of their skin.'¹⁰² McIvor and Johnston note that miners' chest diseases had appeared in medical journals in the 1830s, had disappeared by the late nineteenth century and then reappeared in the early twentieth century.¹⁰³

Research into miners' dust diseases gathered pace from the second decade of the twentieth century onwards, often as a result of the pressure exerted by miners' trade unions, and it resulted in official recognition through inclusion in the statutory workmen's compensation system. An Act passed in 1918 instituted compensation payments for workers suffering chest disease as a result of work underground in which silica was present in the rock to a high degree and this was extended to miners engaged in drilling and blasting in 1928. Further research and political pressure by the trade unions resulted in a further amendment in 1935, when the need to prove the silica content was removed and all underground workers became eligible for compensation payments.¹⁰⁴ Silicosis in coalminers came to dominate all silicosis claims: by 1938, 51 per cent of disablement cases and 78 per cent of new disablement cases in Britain were attributed to the coalmining industry.¹⁰⁵ As recognition of the issue increased, and support grew for the idea that dust was harmful, employers intensified their resistance and many refused claims.¹⁰⁶ Coalminers' pneumoconiosis, finally recognised as a distinct and compensatable disease, was scheduled in 1942.¹⁰⁷

In an official sense, miners' chest diseases were a problem confined to the south Wales coalfield in the 1930s and 1940s as disproportionately greater numbers of cases were notified in the region and as major research projects were carried out to ascertain the causes and character of the disease. In the years 1931 to 1937, for example, 5.23 in every 1,000 underground workers in anthracite mines in south Wales were certified with silicosis, compared to 0.06 in 1,000 in other British coalmines combined.¹⁰⁸ Official statistics put the death toll of silicosis and pneumoconiosis for south Wales miners at 1,334 between 1937 and 1948, while a further 18,297 were classed as permanent disablement

cases; in contrast, the South Wales Area of the NUM contended that the figures should be 2,088 and 38,449, respectively.¹⁰⁹ Whatever the true extent of the pneumoconiosis problem, it was clear that south Wales bore a heavy burden relative to other coalfields: in comparison, only eighty pneumoconiotics were found in collieries across the north-east of England in 1943.¹¹⁰ A memo from the Ministry of Fuel and Power in 1944 stated that south Wales possessed ‘the “black spots” of the mining industry’ for industrial pulmonary disease.¹¹¹

Thus, miners’ chest diseases underwent a process of medicalisation as they came to be defined as a medical rather than occupational problem, as medical and scientific research was carried out to discover the aetiology of the disease and as medical diagnoses allowed access to compensation payments. In this process, the miners’ trade union was an important agent, as it encouraged scientists and medics with an interest in this matter to come to south Wales to conduct their research and encouraged miners to allow themselves to undergo medical examination and X-rays in order to develop knowledge and understanding of the disease.¹¹² The trade union’s role in the medicalisation of miners’ chest disease is best demonstrated in the adversarial nature of the compensation system. As Michael Bloor has noted, the union adopted an ‘instrumental use of expertise’, by which it countered the medical advice procured by employers in compensation cases by securing its own medical expertise to support impaired miners’ claims to compensation.¹¹³ Dai Dan Evans, a miners’ leader in south Wales, was quite clear that medical expertise was purchased by the union on behalf of the impaired miner:

So they [the company] sent him to a specialist, one employed by the coalowners, and he’d say this man is fit to go back to his normal work. The other man employed by us would say he’s not fit to go back to his normal work ... Now. Both men have studied the same problem. They’ve studied medicine. And they’ve examined the same person: they’ve examined the same incapacity. And yet these two men will come to different conclusions ... Now. Is that because of ...? Not because of the condition of the man, but because of the difference between the person that employs them, the two classes that employ them.¹¹⁴

In these circumstances, impaired miners were not merely the objects of medical scrutiny and authority but, through their trade unions, were able to direct medical expertise to their advantage.

While progress was slow, fitful and contested, medical and scientific understanding of miners’ pulmonary disease nevertheless increased in the first half of the twentieth century. Another major development in medical knowledge of miners’ diseases, almost entirely overlooked by modern historians, concerned



FIG. 22.—THE HEAD TEST.

This is one of the best methods of bringing out the movements of the eyes and the tremor of the head so often present in nystagmus. The patient's head is kept strongly fixed with one hand and his attention is directed to the other hand held above his head.



FIG. 23.—THE HEAD TEST.

This patient (spastic type of disease) was asked to keep his head down and look up. Note the extreme convergence of the eyes—an involuntary protective mechanism for fixing the eyes and preventing oscillation—and compare with Fig. 22.

1 A miner is tested for nystagmus using 'the head test'. From the First Report of the Miners' Nystagmus Committee, 1922.

the eye condition nystagmus, characterised by the uncontrollable oscillation of the eyeball (Figure 1). Nystagmus was prevalent across the country's coalmines – McIvor and Johnston estimate that over 10,000 miners had developed the condition by the 1920s – but it continued to be 'poorly understood before the Second World War'.¹¹⁵ Nystagmus was scheduled under the workmen's compensation legislation earlier than many of the other occupational diseases associated with miners: it was scheduled as an industrial disease under the 1906 Act, and clarified as 'nystagmus in the process of mining' in 1913. Much like the discourses on dust diseases, the causation of nystagmus was the subject of fierce medical debate. Two narratives dominated explanations of its primary cause. The first was that it was a consequence of the position of the miner at work, primarily as a result of the miner's lying on his side while working, while the second explanation attributed the disease to poor illumination, made worse by the safety lamps used underground.¹¹⁶

The latter explanation came to be accepted within the medical profession. Dr Josiah Court, who carried out research into the disease in Derbyshire, the Forest of Dean and Durham, proclaimed in 1919 that he had 'entirely demolished the received theory that Nystagmus was due to the strain on the eyes caused by the cramped position in which the men work'.¹¹⁷ In the Durham collieries

which Court inspected, he found that ‘nearly a third of those using the safety lamp were affected, and yet they never lie upon their sides to work, they never turned obliquely upwards.’¹¹⁸ Nevertheless, this did not end the alternate view being propagated in medical and trade journals: the *Colliery Guardian* continued to publish articles refuting the illumination theory well into the 1920s and 1930s.¹¹⁹ Much like pneumoconiosis, the medical debate surrounding nystagmus was long, complex and full of uncertainty, and this had consequences for impaired miners’ experiences of the compensation system.

The medical discourses surrounding dust diseases and miners’ nystagmus demonstrate the complexity and contested nature of medical knowledge. More than that, medical or professional understandings differed from lay attitudes and miners and their families made sense of impairment in distinctive ways. Nowhere was this clearer than in lay attitudes towards the efficacy of medical science’s ability to ‘cure’ or ameliorate impairments and the use of patent medicines, ‘quack’ cures and alternative systems of medicine. Ointments, embrocations and liniments were concocted by family members or individuals in the community and utilised to ease the aches and pains of work and everyday life. One doctor who practised in the Aberdare region, south Wales, before the First World War remembered a ‘Mrs. Scott’ of ‘Gwynfa Terrace’ who prepared her famous linseed poultices whenever anyone became ill and patients apparently saw no need to consult a doctor after seeing her.¹²⁰ In Ernest Rhys’ collection of interconnected tales, *Black Horse Pit* (1925), set in the north-east of England where he had worked as a young mining engineer in the 1880s, a cure-all known as ‘Hollover’s “White Bottle”’ looms large:

In its magic powers and strange efficacy Black Horse Pit believed to a man – all save the pit-doctor, Dr. Smith, who made a grimace as if he were chewing bitter aloes when it was mentioned. It always was mentioned, for the recognised thing to do when a man was brought out of the pit disabled by a runaway tub or fall of stone was to set him down at Hollover’s cabin door. Then, with an air of immense assurance, Hollover [who worked at the foot of the mineshaft] brought out the white bottle, and gave the damaged man a delicate douche on the joint affected, or, if it was a cut or wound, on a dirty rag fetched out of his rag-bag, which he applied *secundum artem*.

‘It’s enough to poison any man he puts it on,’ said the doctor; ‘rotten eggs, turps, lamp-oil, I shouldn’t wonder; and a beastly dirty clarty clout to make it worse.’

But what is science against faith? If the management had suppressed Hollover’s white bottle there would have been a strike.¹²¹

In these ‘reminiscent tales,’¹²² published four decades after Rhys left the mines, the White Bottle *does* wield a restorative power.

Patent medicines, usually obtained from pharmacists or else through advertisements in newspapers, were also popular. One of the best known was Dr William's Pink Pills for Pale People, one of those cure-all patent medicines that seemingly cured more complaints than was credible. Advertisements for such products were tailored for the various readerships of the newspapers in which they appeared and one such advertisement, aimed at miners, included a testimonial from a miner breaking both legs from a falling roof who had 'three doctors attending me off and on, and although they were exceptionally kind and did all they possibly could for me, I never got relief'. Had the pale person not received the pink pills, he '[did] not think I would now be alive'.¹²³

More significant as far as impairment is concerned, miners, similar to many other manual workers, patronised bone-setters for a range of physical injuries and complaints.¹²⁴ Such untrained practitioners, whose skills were often passed down from generation to generation, attempted to give relief to stiff joints, dislocations, sprains and fractures by the manipulation of limbs or the body. Belief in these men was said to be implicit, and bonesetters were highly regarded in the communities in which they practised; two bonesetters in south Wales, William Price of Merthyr and Albert Whittle of Aberdare, even advertised their services in a local directory.¹²⁵ Another bonesetter, William Rae from Blantyre in the Lanarkshire coalfield, became famous beyond his mining community in 1904 as the local, national and medical press picked up his story and publicised his activities in 'bloodless surgery'.¹²⁶ After he treated a famous footballer in 1904, hundreds of injured and impaired individuals started flocking to Blantyre each day to be treated by this 'miner healer', this 'collier surgeon', and Blantyre came to be described in the sensationalist tabloid treatment of the story as a 'Scottish Lourdes' and a 'Cripples' Mecca.¹²⁷

Despite the scorn of the medical establishment, bonesetters were not as far removed from mainstream medicine as other alternative practitioners, and certainly the techniques of bonesetters informed the development of orthopaedics, at least to some extent. It is indicative, for example, that David Rocyn Jones, the Monmouthshire county medical officer, was the descendant of three generations of bonesetters, and had one brother who continued the family tradition during the interwar period and another brother who became an orthopaedic surgeon, as did one of his sons.¹²⁸ The crucial point here, though, is that miners and their families looked beyond organised biomedicine for their health and well-being, and rejected the methods and techniques of professional doctors, preferring to follow their own sense of what worked and what brought relief.

While a great deal of scientific and medical research was carried out into nystagmus and pulmonary disease in the first half of the twentieth century,

there was very little development in effective medical treatments and this partly explains the popularity of self-treatment and alternative systems of medical care. These two conditions were largely managed through removing the disabled worker from the conditions in which he had contracted the complaints in the first place. Sufferers from nystagmus were moved to lower-paid, lower-status work on the surface in better light conditions, if they did not leave the industry altogether, while pneumoconiotics faced considerable social and economic dislocation, particularly between 1943 and 1948, when they were required to leave the industry altogether if diagnosed with the disease.¹²⁹ In this sense, nystagmus and pneumoconiosis were medicalised to the extent that sufferers were subject to medical scrutiny and were required to undergo medical examination to prove eligibility for compensation payments, but they did not undergo any new, invasive or, indeed, effective medical interventions, nor were they institutionalised in hospitals or homes to any large degree.

In contrast, the development of orthopaedics in the same period witnessed not only developments in knowledge and understanding but also more extensive provision of medical and rehabilitation services that impacted in more direct and intimate ways on miners' bodies and had greater consequences for the experiences of impaired miners. Roger Cooter has shown how the development of orthopaedics in Britain in the 1920s was far more concerned with wounded veterans of the First World War and 'crippled' children than with the more numerous casualties of industry, as well as the ways in which the context changed in the 1930s and 1940s.¹³⁰ As orthopaedists sought new areas of influence for their particular skills and expertise, so the political and industrial context also changed to create more favourable conditions for the rehabilitation of injured workers and, as one of the most hazardous of industries, coal was central to the developments that took place in these years.¹³¹

A great deal of the work of rehabilitation was carried out in former convalescent homes that came to be medicalised in the 1930s and 1940s as orthopaedic techniques and treatments were increasingly applied. Convalescence, as an idea and a practice, had long been established in the industrial districts of Britain, none more so than the coalfields. In south Wales, the Rest Convalescent Home at Porthcawl was founded in the 1860s, largely through the charitable donations and subscriptions of the region's elites, and was intended for the working poor. By the late nineteenth century funding was received from a broad array of bodies and organisations, including miners' friendly societies, medical schemes and trade union lodges, so that miners and members of their families came to form the greater part of the home's clientele.¹³² This change in the funding basis and patient base was reflected in developments in other coalfields in the same period as friendly societies and the Co-operative movement came to provide

access to convalescent care for their respective constituencies, both of which might have included at least some miners, and as a right rather than as a charitable bounty.¹³³ Many of the larger voluntary hospitals also established convalescent homes in the latter part of the nineteenth century, in part to manage the pressure that was being placed on bed resources as more patients experienced longer stays in these institutions.¹³⁴

The sources of income of convalescent homes underwent further significant change in the 1920s and 1930s as the Miners' Welfare Fund – a statutory body funded by a 1d. levy on each ton of coal raised in Britain and intended to improve the recreational facilities and health services in mining districts – came to make large grants to convalescent institutions.¹³⁵ Ayrshire District Miners' Convalescent Home in Kirkmichael and Talygarn Rehabilitation Centre in south Wales were both opened in 1923, for example, in spacious, healthy locations, to provide convalescence for injured and aged miners and their families. However, these were, by and large, social rather than medical institutions, and they focused more on the management of the regimen of the 'patient' than on any therapeutic interventions. Rest, good diet, light recreation and fresh air were intended as the main means by which the injured and sick would recuperate and be fit enough again to resume their former lives. In addition, the massive demand for places meant that long stays and extensive therapy were simply impossible and periods spent at the institutions were often envisaged as more akin to holidays than any medical experience.¹³⁶ The years during and just after the First World War witnessed a greater use of physiotherapy (i.e. physical, occupational and recreational therapy) as medical personnel came to play a more important role in convalescence, but it was the development of orthopaedics in the 1930s that led to greater medicalisation in convalescent homes as surgical interventions, greater medical supervision and efforts at physical rehabilitation changed regimes for miners to a greater degree than at any point previously.¹³⁷

Such developments were evident from the 1930s onwards. A residential rehabilitation centre at Uddingston, near Glasgow and out-patients' orthopaedic clinics in the mining areas, were initiated in 1935 by the Lanarkshire Orthopaedic Association, a body with representatives from the miners' trade union, the employers' association and the local medical practitioners, while a residential orthopaedic centre at Berry Hill Hall, Mansfield and an out-patient centre at Wigan were both started in 1940. All three were initiated by the coalowners' associations or mutual indemnity companies (i.e. companies created by groups of employers to pool the insurance risks posed by injury and disability) in their respective areas and received significant financial assistance from them. The rationale for employer support was both to lessen the financial liabilities caused

by serious impairment and to prevent collieries being clogged up with difficult 'light work' cases.¹³⁸ In the late 1930s a joint statement submitted by the senior surgeons of the Royal and Western infirmaries, Glasgow, to the Inter-Departmental Committee on the Rehabilitation of Persons Injured by Accidents stated quite explicitly that it was employers' organisations, friendly societies and the insurance companies, which dealt with workmen's compensation payments, that should fund rehabilitation centres, since 'money laid out for this purpose would give a good economic return.'¹³⁹

Such was the utility of fracture clinics and residential rehabilitation centres that the Miners' Welfare Fund, managed by joint committees of employers' and union representatives, provided financial assistance to extend these types of medical interventions, just as it had supported convalescent homes. In 1933, for example, £25,000 was granted to the Sheffield Royal Infirmary to build a fracture unit in the Miners' Welfare ward, while £13,000 was given to the Manchester Royal Infirmary in 1938 when the fracture clinic was incorporated into a new orthopaedic and physiotherapy building.¹⁴⁰ The government White Paper on Coal in 1942 recommended 50 per cent grants for rehabilitation centres from the Miners' Welfare Fund.¹⁴¹ By 1944, eight centres had been built, and several were converted convalescent homes, including Talygarn.¹⁴² An Inter-Departmental Committee was formed to report on rehabilitation of disabled miners, and praised the cooperation of institutions for realising the medical ideal of rehabilitation, arguing that it should set a precedent for further collaboration in rehabilitation work between the Medical Service of the Ministry for Fuel and Power and the departments responsible for the rehabilitation scheme.¹⁴³ The Tomlinson Report, the blueprint for the Disabled Persons (Employment) Act of 1944, singled out the rehabilitation centres for particular praise.¹⁴⁴

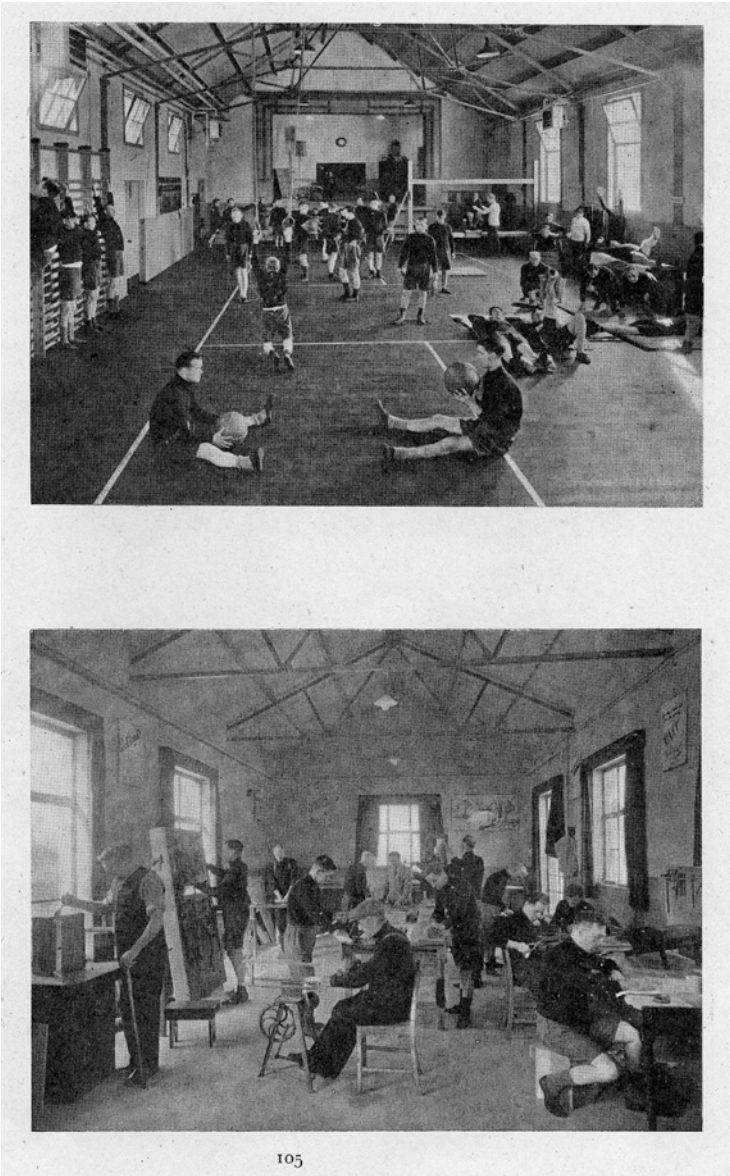
These various fracture clinics and residential rehabilitation centres involved quite significant medical interventions in relation to the bodies of impaired miners. Orthopaedists were convinced that the management of disability through surgery and rehabilitation was superior to the vocational training that merely taught the miner to cope with his impairment and trained him to undertake new forms of work.¹⁴⁵ This specialised, orthopaedic approach to impairment can be clearly seen in operation at the Western Infirmary, Glasgow. All fracture cases were seen by a member of the permanent staff within three hours of arrival and each case was overseen until the individual was able to leave the institution, so that the fracture healed correctly and any joint functioned as well as possible.¹⁴⁶ This involved ensuring that the fractured limb was managed so as to minimise the amount of atrophy and contraction of the surrounding muscle through the particular ways in which any limb was immobilised and

the various exercises that could still be done while the limb was immobilised.¹⁴⁷ A great deal of the success or failure of any case was placed on the shoulders of the miner himself: 'recovery can only come by the unremitting hard work of the patient himself', opined E. A. Nicholls, surgeon at the Berry Hill Hall Miners' Rehabilitation Centre, '[i]gnorance, stupidity, apathy, and sheer laziness must all be overcome.'¹⁴⁸ This is a perfect illustration of the idea inherent in the medicalisation critique that the patient was required to put aside his own autonomy, assume the sick role and accept the expert authority of the surgeon over his health and his body. It also coincides with the idea that disability can be overcome through individual effort and determination.¹⁴⁹

Rehabilitation followed such surgical intervention. Cooter notes that the definition of rehabilitation was a little uncertain in the 1930s and 1940s and variously included physical training, vocational education, surgical interventions and psychotherapy.¹⁵⁰ This was certainly evident in those rehabilitation facilities intended for miners. The Miners' Welfare Fund was clear in its estimation of the transformative role of rehabilitation:

Besides treating the actual injury or affliction, rehabilitation aims at restoring general muscle tone, full function of body and limbs, general health, strength and self-confidence, and then re-settling the individual in industry in his old occupation or retraining him and settling him in some other occupation more suited to his physical capacity if altered.¹⁵¹

The restoration of function, health and strength, as close as possible to the miner's former state, was thus crucial. At the residential rehabilitation centres, treatment consisted of a regime of exercise in the gymnasium, physiotherapy (including the use of massage and heat treatment, and electricity to stimulate muscles), team games, handicrafts and outdoor work.¹⁵² (Figures 2 and 3) Orthopaedists also hoped to extend their influence over the return to work of impaired miners, with input on the selection and supervision of the type of work to which each miner returned, or else the employment of 'medico-social workers as a link between the centre, the surgeon, the patients and the industry', but this ambition does not seem to have progressed beyond conceptions of the idealised role of the surgeon in the rehabilitation process.¹⁵³ As far as the Durham Miners' Rehabilitation Centre at Chester-le-Street was concerned, the 'surgeon-in-charge' examined each miner referred to him by the miner's general practitioner or the surgeon at the fracture clinic and hospital, to see if he was an appropriate object for the care of the Centre. He would then decide the miner's course of treatment during the stay at the Centre and, interestingly, would discharge the miner according to one of four classifications: that he was fit for immediate return to full employment, that he was fit for light work leading



2 Miners partaking in exercises and handcraft at a rehabilitation centre, 1940s



3 Miners practise archery at Uddington Rehabilitation Centre, near Glasgow.
Courtesy of the National Mining Museum Scotland Trust.

to full employment, that he was 'fit permanently for light work adapted to some residual incurable disability', or discharged 'unfit for further employment in mines but recommended for vocational re-training'. In the case of this centre, the surgeon also undertook to make occasional visits after discharge to ascertain the miner's progress and would then make a report to the miner's doctor, who could then refer the miner back to the Centre.¹⁵⁴

If orthopaedists are to be believed, the miner patients were initially suspicious of the work carried out at fracture clinics and rehabilitation centres, but largely because they feared that the aim was merely to get them back to work in order to swell the employers' profits. Once this misconception was overcome and the orthopaedists' independence from the employers was established, it was claimed, disabled patients then accepted the clinics and centres 'purely as a treatment centre' and were more open and more cooperative in their responses to the medical professionals with whom they came into contact.¹⁵⁵

Conclusion

In the years following the installation of a majority Labour government in 1945 the coal industry was nationalised and a national health service was created. Both were the culmination of long struggles or campaigns, or else the product

of a great deal of discussion, disagreement and development in the years before the 1940s. Aneurin Bevan's awareness of the conditions in coalmining communities and, indeed, his involvement in a working-class mutualist organisation, the Tredegar Workmen's Medical Aid Society, were important influences in the decisions he took in the period from 1945 to 1948. At the same time, and despite such influences, occupational health, industrial medicine and the medical responses to disability continued to be partial, fragmentary and uncoordinated, and medicine continued to fail disabled miners and to subject them to a medical model that disregarded the factors that caused their disablement.

Not even the obligation placed upon the new NCB to safeguard the health of all employees, manifest in a new Mines Medical Service, could address these failings, and the coal industry continued to lag behind other industries in the quality of medical care extended to its workers. C. G. Vickers, Legal Advisor to the NCB and later a member of the Board, argued that:

Before nationalisation, there were a few isolated examples of colliery medical services which included surgeries, state-registered nurse, central X-ray plant, physiotherapy, and other services. In general, however, coalmining had no such service, and the doctors attached to mines were mainly there to deal with serious accidents, and for compensation cases. By contrast, good medical services, first class clinics, doctors, state registered nurses, physiotherapy, x-ray, dentistry, chiropody and other facilities are by now fairly general in other large industrial undertakings. It is, in fact, becoming accepted that any large industrial undertaking should be regarded not only as a business concern, but as a social unit and, as such, it will be expected to provide certain social services of which a medical service will be one. In return for providing an adequate medical service, industry can expect certain benefits such as, for example, the raising of morale, the increase of working efficiency, and the reduction of wastage and time lost through sickness and accidents which are, in the coalmining industry, at present very considerable.¹⁵⁶

The seventy or so years before the creation of the NHS and the NCB certainly witnessed a great deal of development in understandings of the miner's body, health and well-being, and various aspects of the impairment caused by the coal industry were much better understood than ever before. The efforts made to better understand chest diseases, nystagmus and injuries were considerable, and it would be no exaggeration to claim that the miner's well-being was given greater importance by the 1940s. Considerable scientific and medical research had been carried out, various injuries, diseases and complaints had been registered as compensatable and a range of services had been developed to treat mining disabilities – miners' bodies were valued like at no other time in history, either before or since.

Crucially, however, very little of this attention or research had resulted in the development of effective therapeutics, nor indeed a view of mining impairment as being anything other than pathological and, indeed, a medical problem. Nevertheless, it is evident that medical science continued to play only a very limited role in miners' impairments. Greater medicalisation was evident in other health experiences in the first half of the century, such as childbirth, infectious disease, children's health or mental health, but continued to be quite stunted in relation to the types of ailments and injuries that afflicted miners. Despite their role in initial treatment or diagnosis, and then subsequent interventions in the compensation system, doctors had only a very limited role to play in relation to miners' disability, and a crude reading of the medicalisation critique cannot be applied to this area of healthcare and medicine.

The medicalisation model is further complicated by the roles played by miners and disabled workers in their experiences of medicine, and, as Steve Sturdy's work reminds us, the need to recognise workers' own agency is crucial.¹⁵⁷ This particular 'patient group' was well organised, relatively militant and powerful in political terms, and it was able to influence the debates and discussions that went on about their health and, at least in part, to organise their own health and medical services according to their own values and priorities. While disability scholars are right to claim that 'Historically, people with disabilities have been powerless, marginalized socially, politically, and economically, and denigrated by dominant cultural values', this would not seem to describe the experiences of miners very accurately.¹⁵⁸ The might of organised labour was considerable when compared to the power that could be mobilised on behalf of other groups such as children, women, the poor or the mentally ill, and it was often exercised to increase the extent and reach of medical services. Any assertion of the supremacy of medical expertise over the miner's body, therefore, would be flawed in the extreme.¹⁵⁹

Notes

- 1 *Colliery Guardian*, 5 November 1915.
- 2 See Roger Cooter, *Surgery and Society in Peace and War: Orthopaedics and the Organization of Modern Medicine, 1880–1948* (Basingstoke: Macmillan, 1993), p. 138; Arthur J. McIvor and Ronald Johnston *Miners' Lung: A History of Dust Disease in British Coal Mining* (Aldershot: Ashgate, 2007), p. 66; Steve Sturdy, 'The Industrial Body', in John V. Pickstone and Roger Cooter (eds), *Companion to Medicine in the Twentieth Century* (London: Routledge, 2003), pp. 217–34.
- 3 Beth Linker, 'On the Borderland of Medical and Disability History: A Survey of the Fields', *Bulletin of the History of Medicine*, 87:4 (2013), p. 519.

- 4 Catherine Kudlick, 'Comment: On the Borderland of Medical and Disability History', *Bulletin of the History of Medicine*, 87:4 (2013), p. 544; Jeanne Hayes and Elizbaeth "Lisa" M. Hannold, 'The Road to Empowerment: A Historical Perspective on the Medicalization of Disability', *Journal of Health and Human Services Administration*, 30:3 (2007), p. 357.
- 5 Deborah Lupton, 'Foucault and the Medicalisation Critique', in Alan R. Petersen and Robin Bunton (eds), *Foucault, Health and Medicine* (London: Routledge, 1997), p. 189.
- 6 Hayes and Hannold, 'The Road to Empowerment', p. 355.
- 7 Hayes and Hannold, 'The Road to Empowerment', p. 353.
- 8 Linker, 'On the Borderland of Medical and Disability History', p. 519.
- 9 Linker, 'On the Borderland of Medical and Disability History', p. 526.
- 10 'Life, Enterprise, and Peril in Coal-Mines', *Quarterly Review*, 110:220 (October 1861), p. 359, quoted in James Jaffe, 'Introduction', in John Benson (ed.), *Coal in Victorian Britain, Part II: Volume 4, Identities and Communities* (London: Pickering & Chatto, 2012), p. vii.
- 11 Ferdynand Zweig, *Men in the Pits* (London: Gollancz, 1948), p. 4.
- 12 Anne McClintock, *Imperial Leather: Race, Gender, and Sexuality in Colonial Contest* (London: Routledge, 2013), p. 115.
- 13 James C. Welsh, *The Underworld: The Story of Robert Sinclair, Miner* (London: H. Jenkins, 1920); James C. Welsh, *The Morlocks* (London: Herbert Jenkins, 1924); H. G. Wells, *The Time Machine* (London: William Heinemann, 1895).
- 14 For examples, see *Y Gwladgarwr*, 22 July 1881, p. 4; *Y Gwilydydd*, 19 March 1908, p. 2; *Y Darian*, 23 November 1916, p. 6.
- 15 George Orwell, *The Road to Wigan Pier*, new edn (London: Penguin Classics, 2001), p. 13.
- 16 Ramsay Guthrie, *Kitty Fagan: A Romance of Pit Life* (London: Christian Commonwealth Publishing, 1900), p. 78.
- 17 J. C. Grant, *The Back-to-Backs* (London: Chatto and Windus, 1930), p. 18.
- 18 Harold Heslop, *The Gate of a Strange Field* (London: Brentano, 1929), p. 33.
- 19 Lewis Jones, *We Live* (1939) in Lewis Jones, *Cwmardy and We Live* (Cardigan: Parthian, 2006), p. 637.
- 20 Jones, *Cwmardy and We Live*, p. 169.
- 21 Tom Hanlin, *Yesterday Will Return* (London: Nicholas & Watson, 1946), p. 120.
- 22 Hanlin, *Yesterday Will Return*, pp. 119–20.
- 23 Sturdy, 'The Industrial Body'.
- 24 Perhaps the most notable instance of this rhetorical use of illness, injury and disability can be found in the discussions surrounding the Sankey Commission which reported in 1919; Independent Labour Party, *The Mineowners in the Dock: A Summary of the Evidence Given before the Coal Industry Commission* (London: Independent Labour Party, 1919); for another example of the rhetorical uses of disability in a political context, see Edward Slavishak, *Bodies of Work: Civic Display and Labor in Industrial Pittsburgh* (Durham, NC: Duke University Press, 2008).

- 25 Martin A. Powell, 'How Adequate was Hospital Provision before the NHS? An Examination of the 1945 South Wales Hospital Survey', *Local Population Studies*, 48 (1992), pp. 22–32; Martin A. Powell, 'Hospital Provision before the National Health Service: A Geographical Study of the 1945 Hospital Survey', *Social History of Medicine*, 5:3 (1992), pp. 483–504; Martin Gorsky, John Mohan and Martin Powell, 'British Voluntary Hospitals, 1871–1938: The Geography of Provision and Utilization', *Journal of Historical Geography*, 25:4 (1999), pp. 463–82; Martin A. Powell, 'Coasts and Coalfields: The Geographical Distribution of Doctors in England and Wales in the 1930s', *Social History of Medicine*, 18:2 (2005), pp. 245–63.
- 26 A. J. Cronin, *The Citadel* (London: Vista, 1996), p. 17. A bosh is a sink.
- 27 'An Investigation into the Economic Conditions of Contract Medical Practice in the United Kingdom', *British Medical Journal*, Supplement, 22 July 1905.
- 28 David G. Green, *Working-Class Patients and the Medical Establishment* (Aldershot: Gower, 2005).
- 29 Royal Commission on the Poor Laws and Relief of Distress. Appendix volume III. Minutes of evidence, Cd. 4755, 1909, xl, p. 426.
- 30 Michael Foot, *Aneurin Bevan, A Biography, vol.1* (London: MacGibbon & Kee, 1963), p. 63; Harold Finch, *Memoirs of a Bedwellty MP* (Newport: Starling Press, 1972), pp. 33–5; David G. Green, *Working Class Patients and the Medical Establishment* (Hounslow: Temple Smith, 1985), p. 174, *Picture Post*, 27 April 1946, pp. 20–1.
- 31 A. J. Cronin, *Adventures in Two Worlds* (London: Victor Gollancz, 1952), p. 159. A. J. Cronin drew on his personal experiences as a doctor in south Wales and as Medical Inspector of Mines to portray the work of a Scottish doctor in a south Wales mining district, fictionalising Tredegar Medical Aid Society as 'Aberalaw Medical Aid Society'.
- 32 Christopher Meredith, 'Cronin and the Chronotope: Place, Time and Pessimistic Individualism in *The Citadel*', *North American Journal of Welsh Studies*, 8 (2013), pp. 50–65; Alan Davies, *A. J. Cronin: The Man Who Created Dr Finlay* (London: Alma Books, 2011); S. O'Mahony, 'A. J. Cronin and *The Citadel*: Did a Work of Fiction Contribute to the Foundation of the NHS?', *Journal of the Royal College of Physicians of Edinburgh*, 42 (2012), pp. 172–8.
- 33 Rhys Davies, *A Time to Laugh* (Cardigan: Parthian, 2014), p. 103.
- 34 Davies, *A Time to Laugh*, p. 178.
- 35 Davies, *A Time to Laugh*, pp. 177–8.
- 36 Morris cannot benefit from employment by the Medical Aid Society as he has been boycotted. He has alienated chapel-going collier families on account of a scandal involving being arrested while in bed with a working-class woman; he is later acquitted of the crime of incitement to riot, but the woman's miner brother is sentenced to nine months' hard labour.
- 37 'An Investigation into the Economic Conditions of Contract Medical Practice in the United Kingdom', *British Medical Journal*, Supplement, 22 July 1905, p. 13.
- 38 *British Medical Journal*, 6 June 1903, pp. 1339–40.

- 39 The term 'panel patients' refers to the panels of doctors established under the 1911 Act that provided care under the National Insurance (NI) system. The patients covered were eligible on account of their NI payments and consulted a doctor from the panel.
- 40 Royal College of Physicians of Edinburgh website, Recollections of John S. Milne, www.rcpe.ac.uk/library-archives/general-practice-east-lothian-1946-1966, accessed 17 November 2015.
- 41 *List of Societies approved by the Joint Commissioners and by the Commissioners for England, Ireland, Scotland, and Wales*, Cd. 6238, 1912–12, lxxviii, p. 11; Ian MacDougall (ed.), *Mid and East Lothian Miners' Association Minutes 1894–1918* (Edinburgh: Scottish History Society, 2003), p. 19; K. Brown, 'The Lodges of the Durham Miners' Association, 1869–1926', *Northern History*, 23:1 (1987), p. 143.
- 42 Scottish Board of Health, *Consultative Council on Medical and Allied Services, Interim Report, A Scheme of Medical Service for Scotland*, Cmd. 1039, 1920, xvii, p. 8.
- 43 For examples, see South Wales Coalfield Collection, Swansea University, Alistair Wilson Collection; Glamorgan Archives, Cresswell Family Practice Records.
- 44 Anne Digby, *The Evolution of British General Practice, 1850–1948* (Oxford: Oxford University Press, 1999), pp. 192, 210–11.
- 45 Digby, *Evolution of British General Practice*, p. 198; see also her "A Human Face to Medicine": Encounters between Patients and General Practitioners in Britain, 1850–1950', *Medizin, Gesellschaft und Geschichte*, 21 (2002), p. 95.
- 46 Florance O'Sullivan, *Return to Wales* (Tenby: Five Arches Press, 1974), p. 49.
- 47 Digby, *The Evolution of British General Practice*, pp. 198, 210–12.
- 48 South Wales Miners' Library, Swansea University (hereafter SWML), AUD/317, Will Arthur interview.
- 49 Digby, *The Evolution of British General Practice*, pp. 319–20; Steven Thompson, 'Paying the Piper and Calling the Tune? Complaints against Doctors in Workers' Medical Schemes in the South Wales Coalfield', in Jonathan Reinartz and Rebecca Wynter (eds), *Complaints, Controversies and Grievances in Medicine: Historical and Social Science Perspectives* (London: Taylor & Francis, 2014), pp. 93–108.
- 50 Cronin, *The Citadel*, p. 116.
- 51 Cronin, *The Citadel*, pp. 115–16.
- 52 B. L. Coombes, *Miners Day* (Middlesex: Harmondsworth, 1945), pp. 124–5.
- 53 For evidence on the 'treatment' of nystagmus, see Simeon Snell, 'On Miners' Nystagmus', *British Medical Journal*, 11 July 1891, p. 66; *Colliery Guardian*, 16 January 1920, p. 170.
- 54 Frank Shufflebotham, 'The Hygienic Aspect of the Coal-Mining Industry in the United Kingdom', *British Medical Journal*, 14 March 1914, p. 590.
- 55 C. M. Fletcher, 'Pnuemoconiosis of Coal-Miners', *British Medical Journal*, 5 June 1948, p. 1073.
- 56 For examples, see Greater Glasgow and Clyde NHS Archives, HB52/2/1, Schaw Auxiliary Home, Register of Admissions and Discharges, Feb 1933–Jul 1936.
- 57 B. L. Coombes, *Those Clouded Hills* (London: Cobbett, 1944), p. 27.

- 58 Jack Jones, *Black Parade* (Cardigan: Parthian, 2009), p. 19.
- 59 Tyne and Wear Archives Service (hereafter TWAS), HO.HI/11, Highfield Public Assistance Institution (Sunderland), Surgeon's Admission and Discharge Register, 2 May 1885–30 June 1890.
- 60 Gwent Archives, D.2472, Ebbw Vale Workmen's Doctors' Fund, Committee Minute Book, 1896–1900, passim. By the 1920s, application was made to arrange for cars to convey members home from convalescent homes but was rejected by the committee; SWMF, Executive Council and Annual and Special Conferences minutes, Annual Conference, 14–17 June 1920.
- 61 Brown, 'The Lodges of the Durham Miners' Association', p. 144; MacDougall, *Mid and East Lothian Miners' Association*, p. 209.
- 62 Glamorgan Archives, DX 83/9/1, Dowlais Iron Company Truss and Wooden Leg Register; see Ben Curtis and Steven Thompson, "A Plentiful Crop of Cripples Made by All this Progress": Disability, Artificial Limbs and Working-Class Mutualism in the South Wales Coalfield, 1890–1948', *Social History of Medicine*, 27:4 (2014), p. 10.
- 63 South Wales Coalfield Collection, Swansea University, SWCC/MNA/NUM/3/5/15, South Wales Miners' Federation, Compensation Secretary's Correspondence with Area No. 4, 1934–1941, Letter to Evan Williams (SWMF Compensation Secretary) from J. M. Williams (Bute [Merthyr] Lodge), 21 September 1934.
- 64 Rhys Davies, 'The Benefit Concert', in Rhys Davies, *Collected Stories: Volume II* edited by Meic Stephens (Llandysul: Gomer Press, 1996), pp. 17–25.
- 65 This is documented extensively in Curtis and Thompson, "A Plentiful Crop of Cripples Made by All this Progress".
- 66 Hayes and Hannold, 'The Road to Empowerment', pp. 360, 367, note that the choice to use assistive devices such as prostheses is a different matter to the imposition of such devices on people with impairments that seeks to normalise them; on the reactions of Foucauldians to calls for the 'de-medicalisation' of everyday life, see Lupton, 'Foucault and the Medicalisation Critique', pp. 207–9.
- 67 Curtis and Thompson, "A Plentiful Crop of Cripples Made by All this Progress", pp. 722–5.
- 68 Gwent Archives, D.2472, Ebbw Vale Workmen's Doctors' Fund Committee, Minute Book, 24 April, 27 March 1897. The woman was listed as 'Mrs Cooper', and so it is possible she was the wife of a member.
- 69 Curtis and Thompson, "A Plentiful Crop of Cripples Made by All this Progress", pp. 718–19.
- 70 Gwent Archives, D.914, Ebbw Vale Workmen's Medical Society, Committee Minute Book, 16 October 1943.
- 71 Gwent Archives, D.3246.1, Tredegar Workmen's Medical Aid Society, Minute Book, 28 March 1929. Hearing aids would of course also have been impractical in the conditions of the mine.
- 72 Graeme Gooday and Karen Sayer, *Managing the Experience of Hearing Loss in Britain, 1830–1930* (London: Palgrave Pivot, 2015), e-book.

- 73 National Archives of Scotland, CB19/1, Scottish Coal Workers' Compensation Scheme, Director's Minute Books, 1912–1914, 906/8.
- 74 Examples of colliers with wooden legs include surface workers (A. J. Cronin, *The Stars Look Down* (London: New English Library, 1978 [1935]) and Jones, *Black Parade*, and underground workers such as a hewer (Harold Heslop, *The Earth Beneath* (London: T. V. Boardman, 1946)) and a roadman (Jack Jones, *Bidden to the Feast*, (London: Corgi Books, 1968 [1938])). Earlier examples include a guard for the slag-heap (Ramsay Guthrie, *Kitty Fagan: A Romance of Pit Life* (London: Christian Commonwealth Publishing, 1900)) and a 'knocker'/'caller' to wake the men for their shifts (Ramsay Guthrie, *Black Dyke* (London: Charles H. Kelly, 1904)). There are also examples of men with 'peg legs' from among the mining community who were self-employed, such as a carter-grocer (Irene Sanderson, *A Welsh Heroine* (London: Lynwood & Co., 1910)), a boot-maker (James C. Welsh, *The Morlocks* (London: Herbert Jenkins, 1924)) and a baker (Rhys Davies, *The Withered Root* (London: R. Holden, 1927)).
- 75 Gwent Archives, D.2472, Ebbw Vale Workmen's Doctors' Fund Committee, Minute Book, 19 March 1898.
- 76 Gwent Archives, D.2472, Ebbw Vale Workmen's Doctors' Fund Committee, Minute Book, 31 December 1898.
- 77 Gwent Archives, D.3246.1, Tredegar Workmen's Medical Aid Society, Minute Book, 17 September 1936.
- 78 Tredegar Workmen's Medical Aid Society, General Committee Minutes, 28 February 1929, 9 March 1933, 23 March 1933, 28 November 1935, 17 September 1936.
- 79 Brian Abel-Smith, *The Hospitals, 1800–1948: A Study in Social Administration in England and Wales* (London: Heinemann, 1964).
- 80 On cottage hospitals, see Meyrick Emrys Roberts, *The Cottage Hospitals, 1859–1990* (Motcombe: Tern, 1991); Steven Cherry, 'Change and Continuity in the Cottage Hospitals c.1859–1948: The Experience in East Anglia', *Medical History*, 36 (1992), pp. 271–89.
- 81 Steven Thompson, 'The Mixed Economy of Care in the South Wales Coalfield, c.1850–1950', in Donnacha Seán Lucey and Virginia Crossman (eds), *Healthcare in Ireland and Britain from 1850: Voluntary, Regional and Comparative Perspectives* (London: Institute of Historical Research, 2015), pp. 150–4.
- 82 Alexander Miller, 'Late Rehabilitation of the Injured', *British Medical Journal*, 22 August 1942, p. 4259.
- 83 Glasgow University Archives, UGD 1/34/1, Scottish Mine Owners' Defence and Mutual Insurance Association 1907–1908, Preliminary Report of Accidents.
- 84 Ministry of Health, *Hospital Survey: The Hospital Services of the North-Eastern Area* (London: HMSO, 1946), pp. 43, 45.
- 85 Ministry of Health, *Hospital Survey*, pp. 43, 62.
- 86 Powell, 'How Adequate was Hospital Provision before the NHS?'; Powell, 'Coasts and Coalfields'.
- 87 Steven Cherry, 'Accountability, Entitlement, and Control Issues and Voluntary Hospital Funding, c.1860–1939', *Social History of Medicine*, 9:2 (1996), pp. 215–33;

- Steven Cherry, 'Hospital Saturday, Workplace Collections, and Issues in Late Nineteenth-Century Hospital Funding', *Medical History*, 44 (2000), pp. 461–88; Barry M. Doyle, 'Voluntary Hospitals in Edwardian Middlesbrough: A Preliminary Report', *North East History*, 34 (2001), pp. 5–33. As an example, see TWAS, HO.SRI/3/1, Sunderland Royal Infirmary, Workmen's Governors Committee Minutes, 1883–1888.
- 88 Cherry, 'Hospital Saturday', pp. 476–8; Cherry, 'Accountability, Entitlement, and Control Issues', pp. 225–32; Doyle, 'Voluntary Hospitals in Edwardian Middlesbrough'; Steven Thompson, "'To Relieve the Sufferings of Humanity, Irrespective of Party, Politics or Creed": Conflict, Consensus and Voluntary Hospital Provision in Edwardian South Wales', *Social History of Medicine*, 16:2 (2003), pp. 247–62.
- 89 TWAS, HO.SRI/45/1, Sunderland Infirmary, Register of Medical Cases, 1st July 1891–28th June 1897.
- 90 For examples of miners with 'emphysema' and 'silicosis', see NHS Greater Glasgow and Clyde Archives, HBS2/2/1, Schaw Home, Admission and Dismissions Register, 1933–36.
- 91 The National Archives, Kew, London (hereafter TNA), BX 3/3, Miners' Welfare Fund: Committee of Enquiry Evidence (1932), Paper No. 24: Memorandum of Evidence from the Miners' Federation of Great Britain; Miller, 'Late Rehabilitation of the Injured', p. 4259.
- 92 For example, the annual report of the Mountain Ash General Hospital in south Wales for 1926 noted that of the 533 in-patients admitted during the year, 439 were surgical cases, 21 were medical and 73 were accident victims; *Second Annual Report and Financial Statement of Mountain Ash and Penrhiwceiber General Hospital, 1926* (Mountain Ash, 1927), p. 18. 'Surgical' and 'medical' cases were distinguished in hospital annual reports to indicate the type of treatment provided, surgical in the case of the former and pharmacological or some other form of non-surgical treatment for the latter.
- 93 For examples, see NHS Greater Glasgow and Clyde Archives, HH67/38/36, Glasgow Royal Infirmary, Ward 38, Surgical, Ward Journal, Dr McEwan, 1933–4; HH67/34/32, Glasgow Royal Infirmary, Ward 34, Mr M McIntyre Case Sheets 1934 M–W.
- 94 TWAS, DX1032, Newcastle Royal Victoria Infirmary, W. E. Harker, record of operations, 1894–95.
- 95 Arthur MacNulty, 'Industrial Eye Injuries', *British Medical Journal*, 7 February 1942, p. 175.
- 96 NHS Greater Glasgow Health Board Archives, HB47/2/2, Glasgow Ophthalmic Institution, Twelfth Annual Report of the Glasgow Ophthalmic Institution, 14th March 1881, p. 6.
- 97 NHS Greater Glasgow Health Board Archives, HB 47/4/2, Glasgow Ophthalmic Institution, Register of Indoor Patients, 1876–91; *Twenty-Fourth Annual Report of the Glasgow Ophthalmic Institution (Under the Management of the Glasgow Royal*

- Infirmary*), 1892, p. 6; *Thirty-Eighth Annual Report of the Glasgow Ophthalmic Institution (Under the Management of the Royal Infirmery)*, 1906, p. 15.
- 98 The Pneumoconiosis etc. (Workmen's Compensation) Act remains in force to offer lump-sum compensation for relatives, and the Coal Industry Social Welfare Organisation (CISWO). NHS Choices, 'Silicosis', <http://www.nhs.uk/conditions/Silicosis/Pages/Introduction.aspx>, accessed 8 January 2015. Coal Industry Social Welfare Organisation, *Partnership in Action* (2012), http://ciswo.org/index.php/download_file/view/108/82/, accessed 8 January 2015.
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