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Original Research

The power of detention in the management of non-compliance with tuberculosis treatment: A survey of Irish practitioners and analysis of potential legal liability

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SUMMARY

Objectives: The detention of patients infected with tuberculosis has recently been the subject of significant professional and public interest. In Ireland, the power to detain and isolate probable sources of infectious disease is found in the Health Act 1947. The objective of this study was to describe the use of the power to detain, and to examine relevant legal implications.

Study design: Cohort survey.

Methods: Respiratory and infectious disease physicians practising in the public sector were invited to complete a self-administered postal questionnaire.

Results: Of the 44 clinicians surveyed, 33 responded, representing a total of 356 years of specialist practice (mean 10.8 years). Although 70% of respondents had made use of threats of formal detention in dealing with non-compliant patients, only one formal detention under statutory powers was identified. Infrastructural and legal concerns with the use of detention were common. There was widespread support for a broadening of the range of additional public health powers, including a power of prolonged detention in the setting of multi-drug-resistant tuberculosis.

Conclusion: Detention and isolation of non-compliant tuberculosis patients remains in active use. Physicians detaining, or threatening to detain, patients continue to expose themselves to legal liability because of the outdated legal framework underlying those powers.

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Introduction

The power to isolate infectious individuals is among the most ancient and drastic of public health powers. Whilst awareness of the importance of public health legal preparedness has grown since the anthrax attacks in the USA and the outbreak of severe acute respiratory syndrome in 2003, there has been relatively little study of the practical use of public health detention in recent times.¹ In Ireland, a power to detain and isolate individuals who are 'a probable source of infection' is provided under Section 38 of the Health Act 1947 (as amended).^{2–4} The power may only be applied where it is impracticable to isolate the individual in their home. The detention process would typically be instigated by the treating physician making a request of a director of public health (DPH), the senior public health doctor at regional level, who has discretion to issue a detention order. There is no requirement for notice or for a judicial hearing. Detention continues until the DPH certifies that the individual is no longer 'a probable source of infection'.

Under existing regulations, the power is available for 11 diseases.⁵ Although only tuberculosis (TB) is of daily relevance, the power would apply in public health emergencies such as pandemic influenza or viral haemorrhagic fevers.

Methods

Infectious disease and respiratory physicians in, or recently retired from, public sector hospital practice were identified through personal knowledge, professional directories and specialists in active practice. At the beginning of 2007, these physicians were sent a self-administered postal questionnaire. Respondents were asked to choose from set answers for most questions, while in other questions, they were allowed free-text responses.

Results

Demographics

Of the 45 hospital physicians identified, current contact details were only available for 44, of whom 33 provided responses. The

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responses represented 16 separate institutions, including all of the major academic teaching hospitals. A response rate of 90% was achieved among infectious disease physicians, while the rate among respiratory physicians was 71%; the total response rate was 75%. A total of 356 years of specialist practice was represented (range 1–30 years, mean 10.8 years, median 7 years). Of the 33 respondents, 29 (88%) reported being ordinarily involved in the treatment of TB.

Non-compliance with treatment

Non-compliance posing a risk to others was an issue at least once every 6 months for 22 (66%) respondents. While 21 (63%) advise a patient to observe home isolation at least once every 6 months, 28 (85%) had admitted a patient to hospital for isolation because this was not possible in their home. Respondents identified a range of patient factors they associate with non-compliance (Table 1).

Strategies for managing non-compliance

Clinicians identified a range of strategies they employ in dealing with patients whose compliance is problematic (Table 2). Although a minority cited the threat of detention among such strategies, 70% of respondents had, in fact, threatened detention in the past and, in the majority of those cases (87%), this strategy was successful. The majority of respondents (70%) had contemplated seeking a detention order on at least one occasion, but in most cases did not proceed to formally request detention. Six individuals had made formal approaches to a DPH, or their equivalent, but an order was only actually issued in one case. In most of the remaining cases, compliance, as judged by the treating physician, was achieved without resort to issuance of an order.

From the 33 respondents, 28 instances were identified where detention was contemplated, as distinct from simply threatened. Treatment was ultimately agreed to, without detention, in at least 21 cases. In 10 of the 28 cases, legal advice was sought or the DPH was formally asked to review the case with a view to issuing an order. One order was issued in 2006 (Department of Health and Children, Dublin, personal communication). Among the reasons identified for not pursuing detention were the possibility of constitutional infirmity of Section 38, and the lack of suitable accommodation in which to detain individuals (see Discussion). In one case, none of the facilities approached with a view to accepting the patient, once detained, was willing to do so. One individual was detained under mental health legislation.

Physicians were asked whether they believed the unit in which they work is capable of accommodating a patient who is formally detained against their wishes; 29 (88%) said that they did not. They

Table 1
Patient factors associated with non-compliance

	n (%)
Drug or alcohol misuse	21 (64)
Homelessness	11 (33)
Psychiatric illness	11 (33)
Cultural factors/language/foreign born	7 (21)
Intellectual disability/educational	5 (15)
Doubtful legal status	5 (15)
Chaotic lifestyle	4 (12)
Socio-economic factors (not specified)	4 (12)
Personality disorder	3 (9)
Poor social supports	3 (9)
Adolescence	2 (6)
Traveller ethnicity	2 (6)
Lack of directly observed therapy/isolation	2 (6)
Disregard for implications	1 (3)
Distrust	1 (3)
No response	5 (15)

Table 2
Strategies employed to achieve treatment concordance

	n (%)
Persuasion, negotiation	22 (67)
Multidisciplinary approach	15 (45)
Directly observed therapy	11 (33)
Threaten detention	6 (18)
Inpatient treatment	7 (21)
Involve relatives	4 (12)
Increase frequency of review	3 (9)
Increase social welfare benefit	1 (3)
On-site dispensing	1 (3)
No response	1 (3)

identified physical infrastructure, staff training and security as major concerns. Several respondents pointed to the lack of patient comforts in the available isolation rooms, making them unsuitable for longer-term isolation.

Despite the rarity of formal detention in Ireland, 14 (42%) responding physicians have had practical experience with detention for infectious disease control in other jurisdictions in North America and the UK.

Access to directly observed therapy

To assess the availability of less restrictive alternatives to detention, physicians were asked to rate directly observed therapy (DOTS) as being available readily, with difficulty or never. Only six (21%) physicians, ordinarily involved in the management of TB, described DOTS as readily available, 20 (69%) said that it was only available with difficulty and two (7%) said that it was never available. Of the six respondents who described DOTS as being readily available, three (50%) came from the same administrative region. In the two most populous regions, only two of 18 (11%) respondents said that DOTS was readily available. Several respondents who reported that DOTS was only available with difficulty qualified this further by amending the text to 'great' or 'very great' difficulty.

Attitudes to public health powers

While there is clearly a preference among respondents for consensus building and supportive approaches to achieving compliance, there is also clear support for the provision of legal powers to compel certain forms of intervention (Table 3). Asked if, in the case of multi-drug-resistant (MDR) TB, they 'believe there should be a power to detain individuals who are poorly compliant with treatment even when those individuals have become sputum negative?', 29 (88%) respondents said 'yes'. One respondent criticized the wording of the question, arguing that culture negativity was a more appropriate discriminating threshold, as individuals may be culture positive, and thus infective, while being sputum negative. Although this criticism is valid, the response nonetheless clearly demonstrates support for an extension of the existing power.

Table 3
Support for legally enforceable powers to compel certain activities

	n (%)
Physical examination	16 (48)
Minimally invasive testing (e.g. bloods, X-ray)	21 (64)
Invasive testing (e.g. broncho-alveolar lavage)	6 (18)
Pharmacological treatment	21 (64)
Preventive measures	23 (70)
None	5 (15)

Discussion

In Ireland and the UK, 15–20% of TB patients are lost to follow-up, i.e. default from treatment, transfer or have an unknown outcome.⁶ The current study confirms that non-compliance with anti-infective therapy, which poses a risk of infection to others, is an ongoing problem in Ireland. Factors which were identified with non-compliance were generally unsurprising (Table 1) and reflect similar findings from other jurisdictions.^{7–9} Interestingly, the recent rapid growth in Ireland's foreign-born population is reflected in some of these factors. Among the challenges created by such demographic changes are difficulties in meeting unfamiliar culturally conditioned beliefs, including fixed views about the lethality of TB and a resulting nihilism, cited by one respondent.

Whilst outpatient treatment of TB is usually feasible, mitigation of the risk of disease transmission may necessitate admission to hospital because of the practical impossibility of achieving isolation at home. In some cases, concerns about compliance with medication or behavioural strategies, such as home isolation or social distancing, make inpatient supervision desirable.

Although compliance is typically achieved in a consensual fashion, this is not always possible. Powers to detain and isolate exist in many European countries, including England and Wales.^{10,11} Few jurisdictions routinely publish figures for infectious disease detentions, although rates as high as 4.7% have been reported in the literature.⁷ Whilst the rate of detention in New York City never exceeded 2% during the MDR TB outbreak in the 1990s, it remains high (1.8%) despite the radical decrease in incidence.^{8,12} The most recently published estimate of the detention rate in England and Wales is 0.2%.¹³ The average rate of pulmonary TB in Ireland and the UK is similar.¹⁴ Despite this, no more than eight TB patients have been detained in Ireland in the last 60 years; the most recent case in 2006 was the first in 40 years (S.T. Duffy, unpublished data).

It is clear that practical considerations and legal concerns have acted as an impediment to the use of formal detention in Ireland. There is a reluctance to detain individuals in settings which are considered inadequate, either in terms of maintaining security or providing the appropriate level of comforts for longer-term isolation. Security concerns appear well founded with several reports in the literature from developed countries of patients absconding from formal detention and, in some cases, being completely lost to follow-up. Doubts about the capacity of existing clinical facilities to deal with detained patients raise the question of potential alternatives. A recent American case involving the isolation of a patient with TB in a prison cell was highly controversial.¹⁵ Indeed, the use of prisons for this type of detention would almost certainly violate the European Convention on Human Rights (ECHR) and the Irish Constitution.^{16,17} This highlights the need to provide appropriate clinical facilities.

Liability arising from admission to hospital

The common law has long protected individual liberty through the tort of false imprisonment, which provides a remedy for individuals who are unlawfully detained. Physicians admitting patients to hospital need to be aware that liability may arise in surprising circumstances. Although, in ordinary parlance, 'imprisonment' has penal connotations, as a legal term of art, it merely refers to a total restraint on freedom of movement.¹⁸ Such restraint need not be physical and indeed imprisonment may be 'psychic', where it is achieved by a threat, either express or implied, that physical force will be used.^{19,20} All imprisonments are presumptively unlawful.²¹

A patient asserting a tort claim for false imprisonment need only prove their 'imprisonment'; the physician bears the burden of proving lawful authority.²² As liability for false imprisonment is not predicated on a showing of fault, the courts will not look at how

well meaning the physician's actions were. Lawful justification may arise from the patient's voluntary consent, if they have mental capacity and the scope of their consent has not been exceeded. Otherwise, justification may be derived from the appropriate use of a statutory power or under the common law.²³

Statutory detention

Where a patient clearly does not consent to admission, liability for false imprisonment would arise unless the statutory detention process is invoked, although even then protection from liability is not assured. Both the ECHR and the Irish Constitution limit the situations in which the state may deprive an individual of their liberty.^{24,25} The ECHR expressly permits deprivations of liberty for the prevention of the spread of infectious diseases. The European Court of Human Rights (ECtHR) has established the following applicable criteria: the spreading of the infectious disease must be dangerous for public health or safety, and the detention must be the last resort in order to prevent spread of the disease.²⁶ This second element reflects the application of the proportionality principle which has also been adopted in Irish constitutional law and requires the use of the 'least restrictive alternative'.²⁷

Even where the letter of the statutory scheme is convention compliant, the manner of its implementation may violate the proportionality principle if detention is not necessary in the circumstances.²⁶ For this reason, it is desirable that there be a range of public health powers, short of detention, which can be used in a scaleable fashion in managing non-compliance. This approach has recently been adopted in England and Wales where powers had been limited, as in Ireland, to removal to, and detention in, hospital.²⁸ In addition to the absence of legal powers governing DOTS, the current study suggests that, as a practical reality, access to DOTS in Ireland is currently inadequate. A detention effected without a meaningful trial of (appropriately facilitated) DOTS would face a significant challenge satisfying the least restrictive alternative standard.

In this study, the physicians who reported seeking legal advice about detaining an individual, or who had requested a detention order, identified a number of reasons why detention was not seen as a viable option. These included doubts about the constitutionality of Section 38. Such doubts have existed since the Act's inception.²⁹ Despite this, Section 38 has never been tested in the courts (Department of Health and Children, Dublin, personal communication). Given the effect of a finding of constitutional invalidity, a good faith belief in its constitutionality would be no defence to a claim for false imprisonment.³⁰ Thus, liability could attach to any detention under Section 38, or any admission achieved through the threat of its use.

The absence of a requirement for a judicial hearing prior to detention is a significant procedural flaw in Section 38. By contrast, in England and Wales, a magistrate's order is required to detain a patient, thus providing some protection against liability for medical staff, and respecting the procedural requirements of Article 5(1) of the ECHR. Nonetheless, that power's compliance with the requirements of Articles 5(4) and 6 of the convention has been criticized because of the absence of a structured judicial appeal mechanism.^{31,32} This criticism applies equally to the Irish power which provides an appeal to the Minister for Health, rather than through the courts.

Despite the absence of a structured judicial appeals procedure, any detention under Section 38 would be susceptible to challenge in the High Court, although only on the instigation of the detainee. In the context of patients who, on account of their mental disabilities, are not fully capable of acting for themselves, the absence of an automatic review process exposes Section 38 to challenge under both the ECHR and the Constitution.^{33,34}

Detention beyond infectiousness

A deprivation of liberty which was lawfully effected will violate the ECHR where the detention is no longer necessary in the circumstances.²⁶ Although the issue has not been addressed directly by the ECtHR, it has been suggested that detention beyond infectiousness would thus violate Article 5.³⁵ Nonetheless, release may not have to be immediate and unconditional when the individual becomes non-infectious. In the case of a psychiatric patient who challenged the failure to release him when the mental illness which had resulted in his detention had resolved, the ECtHR held that the responsible authority must have a measure of discretion in deciding whether immediate and absolute discharge is appropriate in light of 'all the relevant circumstances'. Furthermore, the ECtHR held that the responsible authority could make the release subject to conditions and maintain a measure of supervision.³⁶ The potential for relapse of non-compliance and the emergence of untreatable, drug-resistant TB are surely 'relevant circumstances' which may be taken into account in planning discharge. Detention beyond infectiousness was introduced in New York in the context of the MDR TB outbreak in the 1990s and has also been applied in Canada.^{37,38}

Informal admission to hospital

The role played by Section 38 is not measured adequately by the number of formal detentions. Although the section had only been used once during the study period (Department of Health and Children, Dublin, personal communication), most treating physicians have made reference to the possible exercise of the power. This strategy was regarded by them as being successful in achieving compliance in most of those cases. Several respondents were anxious to highlight that the threat of detention was never employed in isolation from other facilitatory approaches, and that it is several steps along an escalating hierarchy of engagement. Thus, it is difficult to assess how instrumental the threat of detention is in actually achieving compliance. Similarly, the means by which it may achieve compliance are open to question; for some, it may do so through its coercive effect, whereas for others, it may serve to crystallize their appreciation of the significance of their diagnosis and the importance of completing treatment.

As this study demonstrates, the threat of detention has clearly served a role in the management of non-compliance. Physicians should be wary of this strategy as it may expose them to liability. Where a threat of formal detention is instrumental in achieving 'consensual' inpatient treatment, the validity of the patient's 'consent' may be in doubt. This is certainly the case where the physician knowingly misrepresents the possibility of formal detention, e.g. where he knows the legal grounds for detention do not exist. Significantly, a physician may even be liable where he believed, in good faith, that the grounds for detention existed, if he ought to have known that those grounds were not met.³⁹

Another setting in which liability may arise is where a patient who lacks mental capacity acquiesces to inpatient treatment. Although doctors are entitled to rely on a legal presumption of mental capacity, that presumption is rebuttable.^{40,41} Given the association between non-compliance and a variety of factors which may give rise to doubts about the patient's decision-making capacity (Table 1), it is a very real possibility that many patients admitted for isolation may lack legal capacity. In the absence of procedural safeguards, their isolation in hospital may violate the ECHR. In the *Bournemouth* decision, the ECtHR found that there was a deprivation of liberty where medical staff exercised 'complete and

effective control' over the care and movements of an autistic man who lacked mental capacity and was admitted to hospital informally.⁴² An attempt to justify the deprivation of liberty on the grounds of necessity, which had succeeded in the House of Lords, was rejected. The ECtHR held that the doctrine of necessity afforded insufficient procedural safeguards to protect against arbitrary deprivations of liberty, and thus violated Article 5(1). Formalized procedures for dealing with such patients were introduced in England and Wales in response to that decision.⁴³ The so-called 'Bournemouth gap' remains unaddressed in Irish law, leaving open the potential for liability.

Conclusion

Although this study reflects a sizeable body of experience with the management of TB in Ireland, it only represents the anecdotal perceptions of hospitalists. Unfortunately, an attempt to replicate the study among public health doctors was frustrated by an unworkably low response rate. It is undoubtedly true that the issues touched on here are complex and that the nature of the study does not allow the nuances of these issues to be reflected completely. Nonetheless, it is clear that there are significant concerns with respect to both the practical and legislative facilitation of the work of public health. While the community deserves to be protected from exposure to dangerous infectious diseases through the reckless indifference of others, individuals should only be detained as a last resort and with meaningful safeguards of their fundamental rights. As Teigen has observed, 'public health legislation is simultaneously instrumental and symbolic'.⁴⁴ The professional community which bears the responsibility for managing infectious diseases is entitled to a clear democratic mandate for the work which it performs on behalf of society, and to protection from personal liability where it performs those tasks reasonably and in good faith. Thus, reform of public health law to reflect modern human rights standards and modern medical knowledge should be an urgent priority.

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References

1. Moulton AD, Gottfried RN, Goodman RA, Murphy AM, Rawson RD. What is public health legal preparedness? *J Law Med Ethics* 2003;31:672–83.
2. Section 38 of the Health Act 1947. Available from: www.irishstatutebook.ie/1947/en/act/pub/0028/sec0038.html#zza28y1947s38 [accessed 29.07.08].
3. Section 35 of the Health Act 1953. Available from: www.irishstatutebook.ie/1953/en/act/pub/0026/sec0035.html#zza26y1953s35 [accessed 29.07.08].

4. Schedule 5 of the Health Act 2004. Available from: www.irishstatutebook.ie/2004/en/act/pub/0042/sched5.html#sched5 [accessed 29.07.08].
5. Infectious Disease Regulations, 1981 (SI 390/1981) as amended.
6. EuroTB and the National Coordinators for Tuberculosis Surveillance in the WHO European Region. *Surveillance of tuberculosis in Europe*. Report on tuberculosis cases notified in 2006. Saint-Maurice, France: Institut de veille sanitaire. Available from: www.eurotb.org; 2008 [accessed 25.04.08].
7. Burman WJ, Cohn DL, Rietmeijer CA, Judson FN, Sbarbaro JA, Reeves RR. Short-term incarceration for the management of noncompliance with tuberculosis treatment. *Chest* 1997;**112**:57–62.
8. Gasner MR, Maw KL, Feldman GE, Fujiwara PI, Frieden TR. The use of legal action in New York City to ensure treatment of tuberculosis. *N Engl J Med* 1999;**340**:359–66.
9. Oscherwitz T, Tulskey JP, Roger S, Sciortino S, Alpers A, Royce S, et al. Detention of persistently nonadherent patients with tuberculosis. *JAMA* 1997;**278**:843–6.
10. Coker RJ, Mounier-Jack S, Martin R. Public health law and tuberculosis control in Europe. *Public Health* 2007;**121**:266–73.
11. ss. 37 & 38 of the Public Health (Control of Disease) Act 1984.
12. Tuberculosis annual summary 2005. Available from: www.nyc.gov/html/doh/html/tb/tb-reports.shtml [accessed 25.04.08].
13. Coker R. A national survey of detention and TB. *Thorax* 2001;**56**:818.
14. Demographic features and trends in tuberculosis cases in the European Region, 1995–2005. *Euro Surveill*. Available from: www.eurosurveillance.org/edition/v13n12/080318_4.asp, 2008;**13** [accessed 25.04.08].
15. ACLU of Arizona sues county officials over inhumane confinement of TB patient. Available from: www.aclu.org/privacy/gen/29941prs20070531.html [accessed 30.03.08].
16. Ashingdane v United Kingdom, Judgment of 28 May 1985, Series A, No.93 p.21 §44 (1985) 7 EHRR 528.
17. The State (McDonagh) v Frawley [1978] IR 131.
18. Deakin S, Johnston A, Markesinis B. *Markesinis & Deakin's tort law*. 6th ed. Oxford: Clarendon Press; 2007. p. 463.
19. Phillips v Great Northern Railway Co. Ltd. 4 NIJR 154; 1903.
20. Bird v Jones. 7 QB (NS) 742 at 748; 1845.
21. Liversidge v Anderson [1942] AC 206 at 245.
22. R. v Governor of Brockhill Prison, ex parte Evans [2000] 3 WLR 843 at 847H.
23. Dullaghan v Hillen and King [1957] Ir Jur Rep 10.
24. Article 5 of the European Convention on Human Rights. Available from: www.echr.coe.int/NR/rdonlyres/D5CC24A7-DC13-4318-B457-5C9014916D7A/0/EnglishAnglais.pdf [accessed 30.07.08].
25. Article 40.4.1 of the Constitution of Ireland. Available from: www.taoiseach.gov.ie/attached_files/Pdf%20files/Constitution%20of%20Ireland.pdf [accessed 30.07.08].
26. Enhorn v Sweden, Judgment of 25 January 2005. Application no. 56529/00.
27. Heaney v Ireland [1994] 3 IR 594.
28. Health and Social Care Act 2008, Part 3 – Public Health protection. Available from: www.opsi.gov.uk/acts/acts2008/ukpga_20080014_en_1 [accessed 30.10.08].
29. Department of Health File B135/30, National Archives of Ireland, note dated 21st July 1948.
30. Murphy v Attorney General [1982] IR 241.
31. Harris AD, Martin RM. The exercise of public health powers in an era of human rights: the particular problem of tuberculosis. *Public Health* 2004;**118**:312–22.
32. Martin RM. The exercise of public health powers in cases of infectious disease: human rights implications. *Med Law Rev* 2006;**14**:132–43.
33. Winterwerp v the Netherlands, Judgment of 24 October 1979, Series A, No.33 (1979–80) 2 EHRR 387.
34. Croke v Smith (No.2) [1995] IEHC 6.
35. Coker RJ. Communicable disease control and contemporary themes in public health law. *Public Health* 2006;**120**:23–9.
36. Johnson v United Kingdom 1997 VII 2391 (1997) 27 EHRR 296 § 63.
37. Coker RJ. *From chaos to coercion; detention and the control of tuberculosis*. New York: St. Martin's Press; 2000.
38. Rea v McKay, Ontario Court of Justice, Judgment of 2 October 2007.
39. Lebel v Roe [1994] YJ No 62 (QL) (SC).
40. Fitzpatrick v F.K 2008 [IEHC] 104.
41. s.1 of the Mental Capacity Act 2005.
42. H.L. v United Kingdom (2005) EHRR 761.
43. Deprivation of liberty safeguards. Available from: www.justice.gov.uk/docs/cp2307-draft-add.pdf [accessed 29.07.08].
44. Teigen PM. Legislating fear and the public health in gilded age Massachusetts. *J Hist Med Allied Sci* 2007;**62**:141–70.