Abstract
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While the medical humanities have experienced a renaissance, they are still largely a peripheral component of medical education. This is troublesome because the humanities include a number of disciplines that are foundational in understanding medicine and how it should be practiced. Nonetheless, current medical culture makes it difficult to fully incorporate the humanities into curriculum. We therefore propose an incremental approach to shaping the medical culture that can easily be incorporated into daily teaching as opposed to designing additional classes and resources that must be added to existing educational structures. An example of this approach is reviewed here through teaching historical and ethical lessons surrounding Nazi eponyms. The use of names like Wegener provide brief opportunities for sidebars during clinical lectures to remind learners that empirical data do not provide ethical direction and that our medical history has included atrocities that remind us to practice conscientiously. We provide other examples that can be included in daily learning. This approach eschews the burdens associated with large curricular changes, such as student resistance/apathy and logistical barriers, and can be easily implemented. It also enables change to be gradual and through structures that have already been established, allowing learners to see the benefits of insights from the humanities in small, digestible segments. Through this approach, medical culture can be shaped towards a greater appreciation toward the medical humanities.

Keywords
Medical Humanities, Nazism, Nazi Doctors, Wegener, Reiter, Ethics, History, Curricular reform, Eponyms, Medical Education, Reductionism, Hidden Curriculum, Medical Culture, Conscience, Humanism
Introduction
Medical learners today are increasingly out of touch with the humanities. When they arrive at medical school, few have spent any significant time reading about the history of humanity or philosophy. They have instead been steeped in specialized and technical knowledge related to how the human body works or various other scientific disciplines. Universities once educated their students about the universe, but now they have ruptured into studies of separate spheres of knowledge. Students are unable to see how various disciplines find “their true place in the universal system... [and] their mutual dependence,” leaving a fragmentary vision of the world (Newman, 1996). Hence they arrive with skepticism toward the value of history and philosophy. They often fail to see that their very practice of medicine depends on values and a cultural epoch that cannot be isolated from the rest of humanity’s history (Ferry, 2011). This leads to reductionistic medicine.

Much can be said about how this trend can be challenged. Our current trajectory is a reflection of far more than the culture of medicine. It is a progression of the autocratic and pragmatic philosophy that has ensnared Western society (Marsden, 1996). Yet the situation is not without hope. Medical humanities have experienced a renaissance (Bleakley, 2015; Cole, Carlin and Carson, 2015), and it is only through their incorporation into the daily culture and teaching of medicine that their benefits can be reaped. Simply adding a separate class on the humanities will not do. In the age of checking off boxes and buffing up resumes, students will do what needs to be done, but this will hardly lead to personal change.

Historical Eponyms and their Lessons
One of the simplest ways to cultivate an appreciation for medical humanities and its impact on contemporary medical practice is through historical eponyms for diseases. While it is true that some names are in need of revision due to previous errors (e.g. a disease named after someone other than the original describer), it is still useful to contemplate how various labels originated and the context that encouraged their development. Various eponyms provide potential for brief historical and moral lessons without being an onerous addition to the curriculum. Particularly for audiences or teachers whose tolerance for the humanities is low, these can become memorable five-minute sidebars in clinical lectures.

Most notably, the term Wegener’s granulomatosis is currently being phased out of use and replaced by descriptive nomenclature (Falk et al., 2011). This recommendation was in part triggered by concerns that Wegener was involved with the Nazi Party (Woywodt et al., 2006). Others have also advocated for replacing the term Reiter syndrome with reactive arthritis (Keynan and Rimar, 2008). Despite these changes, we believe that these names are of crucial importance for learners as historical lessons even if they are no longer used in the clinical setting. This is because the simple utterance of “Wegener” brings to mind a Nazi. There were physicians – doctors like you and me – that were Nazis. This must never be forgotten.

Wegener reminds us that the history of medicine is not pristine. Medicine has a tremendous capacity to do good, but it likewise can be a tool for evil. This capacity lies not in medicine itself but in the people who practice medicine. The Nazi doctors were at the cutting edge of the medical world, and yet their actions were amongst the most deplorable in history (Lifton, 1986; Spitz, 2005). As we obsess over the newest technological advancements or medical capabilities, we must not forget that new moral questions arise. Emphasis on progress must be tempered by an accurate sense of what progress actually entails. It is not progress to gain an understanding of disease pathology through spilled blood and disregard for human dignity: this is an egregious regression. When on the trail of error, progress necessitates turning around and going in the opposite direction. It requires withholding the knife and aborting the project. We should celebrate medical innovation, but we must not forget that empirical data give no guidance on how to practice ethically (Liao, 2017). Drugs cannot administer themselves; people administer drugs.

Two more simple lessons can be gleaned from a term like Wegener’s. First, there was, as the German-born Jewish philosopher Hannah Arendt said, a certain “banality to evil” (Arendt, 1965). As Eichmann famously declared at the Nuremberg trials, he was simply following orders. Perhaps more disturbingly, he simply followed the law. This should make contemporary physicians at least think twice about simply doing what is legally mandated or culturally popular.

We must be wary of two mechanisms. The first occurs with a single clinical decision when we abdicate our moral sensibilities for the sake of expediency or external pressure. This injury to conscience is grave, but repeated offenses of this nature have a numbing effect until we no longer object and simply behave as a robot would. Courage is critical in mitigating this chain of events. The second mechanism is more sinister. It includes clever, manipulative rhetoric that frames an evil as a good such that it becomes desirable. In Germany this included propaganda of a utopian vision alongside the “problem” of those who were portrayed as subhuman and the necessity to eliminate them (Herf, 2008). This...
rhetoric often begins subtly and grows bolder as fence-sitters become increasingly captivated by a particular vision. Physicians can resist such attempts through an awareness of history and how these regimes develop.

Another lesson involves understanding the characteristics of Nazi physicians like Wegener. While the extremity of Nazi murder “renders it close to unreality,” it was unquestionably real (Lifton, 1986). In describing the Nazi doctors, the psychiatrist Dr. Robert Jay Lifton in his landmark book, *The Nazi Doctors*, said, “They were by no means the demonic figures – sadistic, fanatic, lusting to kill – people have often thought them to be… ordinary people can commit demonic acts” (Lifton, 1986). Arendt had similarly noted how normal Eichmann was; he had no mental illness. Normal people can do bad things. Contemporary physicians must not naively believe they are incapable of evil. It is those who believe themselves least capable of committing atrocities who are the least cautious and most worrisome.

Trainees must not forget that our heritage has involved serious evil. This is not esoteric history but relevant to all entering the profession. These terms do not confer honour, as they are names to which we should react to as we would to Mengele and other Nazi names. We remember instead tragedy. Learning these names will teach us much, like the history of mandatory sterilizations or Tuskegee. We must be unassuming of our own morality and ever vigilant over our practices.

To be clear, we are not advocating to discard granulomatosis with polyangiitis or reactive arthritis. These are clinically important terms that we wholeheartedly endorse. Yet the move toward strictly pathophysiological language must not reflect an orientation that believes medicine is somehow just about science and empirical data and that all sociohistorical phenomena can be discarded. Medicine is about people. And so we simply encourage that, in the educational context, learners be reminded of historical names and their origins. For in remembering our (sometimes blemished) past, we foster a collective conscience in medicine for ethical practice in the future.

**Conclusion**

It will certainly prove to be a challenge to incorporate the humanities more broadly into medicine, but here we have provided one small example of how we can instill important insights into medical education through eponyms. Further opportunities exist through reviewing historical discoveries (e.g. the role of luck in penicillin), key figures in medical history (e.g. Galen’s desertion during epidemics), evolving treatment regimens (e.g. cardiac repair and societal perceptions of Down syndrome), and many other avenues. While ideally larger segments of time and energy could be dedicated to exploring the humanities in medicine, we suspect the majority of students would be less than enthusiastic for such learning. Perhaps with small segments of history and philosophy embedded into daily learning, students can begin to see how these disciplines are not only relevant but foundational to medical practice.

**Take Home Messages**

- Medical learners are in need of greater exposure to the humanities.

- Due to systemic barriers surrounding curricular reform and the general skepticism of many learners towards the humanities, a new approach is needed to encourage their role in medical education.

- The medical humanities can be effectively taught through embedding historical and ethical insights into daily learning, contributing to a change in medical culture.

- Nazi eponyms provide an opportunity to discuss historical lessons within daily clinical lectures.

- Historical and ethical insights from the humanities can help learners to practice conscientiously for the future.

**Notes On Contributors**

Dr. Lester Liao is a pediatric resident at the University of Alberta. He currently acts as the Resident Lead for the Arts and Humanities in Health and Medicine program and as the resident affiliate for the John Dossetor Health Ethics Centre. Dr. Dax Rumsey is an assistant professor in the Department of Pediatrics at the University of Alberta. He is a staff pediatric rheumatologist at the Stollery Children’s Hospital.

**Declarations**

The author has declared that there are no conflicts of interest.

**Ethics Statement**

No ethics approval was required for this personal opinion piece.
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Bibliography/References

Arendt, H. (1965). *Eichmann in Jerusalem: A Report on the Banality of Evil*. New York: Penguin.
Bleakley, A. (2015). *Medical Humanities and Medical Education*. London: Routledge.
Cole, T. R., Carlin, N. and Carson, R. A. (2015). *Medical Humanities: An Introduction*. New York: Cambridge University Press.
Deresiewicz, W. (2014). *Excellent Sheep: The Miseducation of the American Elite and the Way to a Meaningful Life*. New York: Free Press.
Falk, R. J., Gross, W. L., Guillevin, L., Hoffman, G. S., et al. (2011). *Granulomatosis with polyangiitis (Wegener's): An alternative name for wegener's granulomatosis*. *Arthritis and Rheumatism*. 63(4), pp. 863-864.
Ferry, L. (2011). *A Brief History of Thought: A Philosophical Guide to Living*. New York: Harper Perennial.
Herf, J. (2008). *The Jewish Enemy: Nazi Propaganda during World War II and the Holocaust*. Cambridge: Harvard University Press.
Keynan, Y. and Rimar, D. (2008). *Reactive arthritis—the appropriate name*. *The Israel Medical Association Journal*. 10(4), pp. 256–8.
Liao, L. (2017). *Opening our eyes to a critical approach to medicine: The humanities in medical education*. *Medical Teacher*. 39(2), pp. 220–221.
Lifton, R. (1986). *The Nazi Doctors: Medical Killing and the Psychology of Genocide*. New York: Basic Books.
Marsden, G. M. (1996). *The Soul of the American University: From Protestant Establishment to Established Nonbelief*. New York: Oxford University Press.
Newman, J. H. (1996). *The Idea of a University*. Edited by Turner, Frank Miller. New Haven: Yale University Press.
Spitz, V. (2005). *Doctors from Hell: The Horrific Account of Nazi Experiments on Humans*. Boulder: Sentient Publications.
Woywodt, A., Haubitz, M., Haller, H. and Matteson, E. L. (2006). *Wegener's granulomatosis*. *Lancet*. 367(9519), pp. 1362–1366.
This is an interesting and well-written article. I do agree with the authors that knowledge of the history of medicine and of the humanities among modern medical students is low. Among the students whom I teach only a few are aware of the important historical figures in medicine. These are rarely taught and are regarded as unimportant by students and teachers. These are not assessed during licensing exams and do not receive much attention. In South Asia admission to medical school is restricted to students from a science background. The authors describe how eponyms can be used to introduce students to the history of medicine and other issues. The case of Wegener has been well described. Evil deeds can often be carried out by ‘good’ people who were just carrying out orders. The ability for ethical reasoning should be developed among medical students. The approach described by the authors can strengthen the learning of the medical humanities and intertwine it with the history of medicine.

**Competing Interests:** No conflicts of interest were disclosed.
This review has been migrated. The reviewer awarded 5 stars out of 5

A very sensitive area of history turned into a very important learning activity. I really enjoyed reading this piece and found it to be of value to all environments of medical education. It makes a valid point about the lack of knowledge on humanities and history of students and the role of humanities in education with good examples and practical application. Well done!

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Hedy S. Wald
Warren Alpert Medical School of Brown University

This review has been migrated. The reviewer awarded 4 stars out of 5

“There were physicians – doctors like you and me – that were Nazis. This must never be forgotten.” The essence of this important paper. This resonated for me with our paper published in Hektoen (Wald et al, 2017) on - “Holocaust as End Stage Disease – Medical Education as a Moral Imperative” http://hekint.org/2017/01/29/the-holocaust-as-end-stage-disease-medical-education-as-a-moral-imperative/ underlining the point of “doctors like you and me” and highlighting the relevance of this history for the here and now of clinical and research medicine. Thank you Drs. Liao and Rumsey for highlighting this crucial history of medicine (as part of the medical humanities) and advocating for its inclusion in medical education to help foster ethical vigilance and moral resilience. Helping our learners to confront how German physicians enrolled in the Nazi party at a rate three times higher than any other profession (Caplan, 1989, Hastings Cent Rep) and the sheer magnitude of involvement in atrocities (including Aktion T4 euthanasia program to exterminate the disabled and medicalized genocide). Yet another powerful example of the way medical humanities can play such an integral role in medical education. Guided reflection on this history and its implications for one’s own professionalism and professional identity formation can ideally help equip our learners (and ourselves) when facing and grappling with contemporary ethical dilemmas in medicine. I might suggest some additional papers within the literature review (references) which relate to this topic area within medical education, including “Learning from the past” – medicine and the Holocaust (2009, Lancet, Reis & Wald) https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(09)61275-7/abstract and Bruns & Chelouche (2017, Annals Int Med) “Lectures on Inhumanity: Teaching Medical Ethics in German Medical Schools Under Nazism” which highlighted that “medical ethics in Nazi-era medical school curricula existed
yet included “unequal worth of human beings, authoritative role of the physician, and priority of public health over individual -patient care” with the latter resonating hauntingly with current concerns about cultivating and maintaining person-centered care. Eponyms of Nazi-era physicians sadly exist with various specialties and may be powerful exemplars for curriculum inclusion within undergraduate and/or graduate medical education (examples of references include Kondziella & Zeidman 2016, Front Neurol Neurosci, “What’s in a Name? Neurological Eponyms of the Nazi Era”; Eckert et al, 2018 J Am Coll Radiology “Facing the Guilt and Commemorating the Victims: German Radiology and Radiation Oncology During National Socialism, and Halioua, 2010, J Low Genit Tract Dis, “The participation of Hans Hinselmann in medical experiments at Auschwitz”). A community of healthcare professionals, health professions educators, humanities scholars and historians have signed the Galilee Declaration calling for this education in all healthcare professions schools (http://english.wgalil.ac.il/category/Declaration)In addition to inclusion of additional relevant references, this paper could be strengthened with inclusion of ideas on curriculum implementation at both UME and GME levels, which would ideally include facilitated reflection. An example of curriculum innovation is provided in Reis & Wald, 2015, “Contemplating medicine during the Third Reich: scaffolding professional identity formation for medical students” and others may be found on http://www.medicineaftertheholocaust.org/ Thank you for this valuable contribution on such an important topic in ethics, professionalism and professional identity formation in the “becoming” of a physician.

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Gary D. Rogers
Griffith University

This review has been migrated. The reviewer awarded 5 stars out of 5

This well-written opinion piece reports an example of the rare jewel that is a genuinely ‘really good idea’ for health professional education practice. The authors suggest a truly clever way to engage students with historical stories that raise important ethical issues as a part of routine biomedical learning. Appropriately, they propose that these elements be included for all students. This approach offers a much preferable alternative to the highly elaborate medical humanities programs that some institutions have devised but offer only on a voluntary basis, thus ensuring their delivery only to the students who actually need them least!The authors have used the eponymous connections between some medical syndromes and doctors known to have Nazi sympathies as an example but point out that there are many
similar opportunities to connect original descriptions of pathological conditions (or ‘research’ activities or treatment discoveries) to their historical contexts and attendant ethical considerations. I would be particularly interested to hear how the authors plan to assess the knowledges and ethical understandings derived from these ‘side-bars’, in order to encourage student engagement further. I would encourage the authors to work up this concept into a detailed curriculum, implement it and then evaluate its impact and report their findings in the literature. Qualitative approaches, such as phenomenologically-derived techniques that focus on students’ experiences of the approach and the affective learning they generate, would be particularly appropriate to this evaluation task. I will look forward to reading more about this great educational idea.

**Competing Interests:** No conflicts of interest were disclosed.

Jonathan McFarland  
Sechenov University, Moscow

This review has been migrated. The reviewer awarded 3 stars out of 5

An interesting article on a very delicate subject. I firmly agree with the main thesis of the paper, and that is that we can learn from the past, both the good and the bad. In actual fact, this is a priority, we need to learn from the mistakes of the past, and perhaps this is even more important in medicine. And, I agree wholeheartedly with the authors when they say that medicine is about people, and that by remembering our sometimes “blemished” past we can foster a collective conscience for future ethical practice. We must remember, we must never forget. However, I would be wrong if I did not say I have some doubts because the line between learning from and honouring does not seem straightforward, and, in line with the other reviewers, I think that this could be further developed, and when it is, then I would be extremely interested to see it. It has certainly given us some food for thought and should, I hope, raise a lot of interest and debate. Thank you

**Competing Interests:** No conflicts of interest were disclosed.
Trevor Gibbs
AMEE

This review has been migrated. The reviewer awarded 3 stars out of 5

As someone who qualified 45 years ago, I can already reflect on treatments widely accepted when I was a student, that are seriously looked down upon now (aversion therapy and for homosexuality, nil therapy for Downs syndrome babies to name but two), so I would definitively agree with looking back at practices and revisiting their ethics. I would certainly agree with looking back over history and observing the rights and wrongs of other famous and infamous doctors- it is important for students to think and reflect upon these. I am a little uncomfortable with just looking at the notorious German doctors given that there are many more scattered around the world. So although I think that this paper has merit in making us look back to look forward, I would prefer that it had a wider scope. I was waiting for a more practical ending to this paper. I can feel the passion expressed by the author but we also need not just contemplative reflection but how one puts these aspects of humanities teaching into practice.

Competing Interests: No conflicts of interest were disclosed.

Ken Masters
Sultan Qaboos University

This review has been migrated. The reviewer awarded 3 stars out of 5

A delicate subject, well-handled, (and I say this also as person currently living in Austria, just a stone's throw from Mauthausen), although I felt that the authors should have taken it further in order to make a convincing argument and greater value to the reader. Sometimes, the argument appears to meander a little, although the general gist of directly addressing issues of Nazi medicine (if one can call it that), in order to learn about medical practice, and its practitioners, in general, is made. The authors have stopped rather short of where I felt they could have taken this; perhaps they were reticent to go into detail because of the delicate nature of the topic, but I would like to have seen have seen further expansion:
The authors touch on well-known examples, which is good to introduce the topic, but could have raised others that are less well-known, and also touched on related sociological studies (as the authors are advocating for more humanities in medical education), in Germany at the time, such as the work by Eva Justin on “Gypsy” children). Broadening the context a little to similar, but less known (and far less acknowledged) medical experiments performed in Japan over the same period. I realise that the authors are confining themselves to the Nazi practices, but, by drawing in these examples, the authors can look for comparisons and principles, and demonstrate that this is not merely a “German” thing, but goes beyond national boundaries. (Their reference to Tuskegee does that to some extent, but it really should go further). The Japanese example is particularly interesting, because the doctors attempted to use the results of their experiments as bargaining chips to receive lighter sentences. One can imagine the ethical complexities involved in that. Understanding the complexity of historical, legal and social context, and reflecting on what future generations of medical students might think of our practices that we currently hold as acceptable. It would be useful exercise for medical students to look at current gold practices through the lenses of a future generation. Examples: It would have been useful if the authors could describe one or two practical examples of how this historical context could be (or has been) used in teaching medical students.

**Competing Interests:** No conflicts of interest were disclosed.