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# The declining use of medical eponyms associated with the Nazi regime: A case study of changes in the International Classification of Diseases of the World Health Organization

WIOLETA KARWACKA

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**Abstract**

This work focuses on a specific type of terminological variants, i.e. medical eponymous terms gradually replaced by alternative, non-eponymous terms. This descriptive study is conducted on a controlled medical terminology set – the International Classification of Diseases (ICD) of the World Health Organization (WHO). The focus of the study is on the eponymous terms named after physicians associated with the Nazi regime. The aim is to analyse if these eponyms were included in ICD-10 and if they were transferred into the new, 11th version of the Classification. Of all the eponymous terms presented in the paper, seven were found in ICD-10. The overall result of this study indicates that the eponymous terms associated with the Nazi regime have been replaced with alternatives or removed from the 11th version of the International Classification of Diseases in all cases, except for *Creutzfeldt-Jakob disease*.

**Keywords**

medical eponyms, medical terminology, eponymous terms, ICD

## Wypieranie eponimów medycznych związanych z reżimem nazistowskim na przykładzie zmian w Międzynarodowej Klasyfikacji Chorób Światowej Organizacji Zdrowia

Niniejsza praca poświęcona jest specyficznemu typowi wariantów terminologicznych – medycznym terminom eponimicznym, które są stopniowo zastępowane alternatywnymi terminami nieeponimicznymi. Przedstawiono badanie deskryptywne, prowadzone na kontrolowanym zbiorze terminologii medycznej – Międzynarodowej Klasyfikacji Chorób (ICD) Światowej Organizacji Zdrowia (WHO). Badanie koncentruje się na terminach utworzonych od nazwisk lekarzy związanych z reżimem nazistowskim. Celem jest prześledzenie, które z tych eponimów zostały włączone do ICD-10 i czy zostały przeniesione także do nowej, 11. wersji klasyfikacji. Spośród wszystkich terminów eponimicznych przedstawionych w pracy, siedem zostało znalezionych w ICD-10. W 11. wersji Międzynarodowej Klasyfikacji Chorób terminy związane z reżimem nazistowskim zostały usunięte lub zastąpione alternatywnymi terminami we wszystkich przypadkach z wyjątkiem terminu *choroba Creutzfeldta-Jakoba*.

**Słowa kluczowe**

eponimy medyczne, terminologia medyczna, terminy eponimiczne, ICD

## 1. Introduction

Although variation is present in all natural languages, including domain-specific ones, traditional terminology theory placed terminology variation in specialised communication within the area of anomalies, claiming that terms should be fixed and thus variation should be avoided (see Kerremans, De Baer, Temmerman 2010: 185, Wüster 1979). The approaches which developed later resulted in a shift towards accepting variation as one of the central phenomena in descriptive terminology research (Kerremans, De Baer, Temmerman 2010: 185). This work focuses on a specific type of terminological variants, i.e. medical eponym-

ous terms gradually replaced by alternative, non-eponymous terms. This descriptive study is conducted on a controlled medical terminology set developed in an "in vitro" environment – the International Classification of Diseases (ICD) of the World Health Organization (WHO). The focus of the study is on eponymous terms named after physicians associated with the Nazi regime and their replacement with non-eponymous terms in the newest version of ICD.

## 2. The International Classification of Diseases (ICD) of the World Health Organization (WHO)

In May 2019, the World Health Assembly adopted the eleventh version of the International Classification of Diseases, ICD-11, which is expected to come into force on 1 January 2022 (WHO n.d., Porta 2014). ICD-11 is "the global standard for health data, clinical documentation, and statistical aggregation" (WHO n.d.) It is scientifically up-to-date and contains 17,000 categories, 80,000 concepts, 120,000 terms and more than 1.6 million clinical terms. Additionally, its proposal platform is open to stakeholders' suggestions on updates to the Classification. The previous version, ICD-10, was endorsed in May 1990 and since then has been used in more than 150 countries, translated into more than 40 languages, and cited in over 20,000 research papers. ICD is a controlled and standardised terminology set:

> ICD is the foundation for the identification of health trends and statistics globally, and the international standard for reporting diseases and health conditions. It is the diagnostic classification standard for all clinical and research purposes. ICD defines the universe of diseases, disorders, injuries and other related health conditions (WHO n.d.).

The history of ICD dates as far back as 1893, when the first international Classification, the International List of Causes of Death (Bertillon Classification), was adopted by the Inter-

national Statistical Institute (Porta 2014, WHO n.d.). The World Health Organization was entrusted with the ICD in 1948 and published ICD-6, the sixth version of the Classification but the first to include morbidity. As of 1967, under the WHO Nomenclature Regulations, WHO Member States should "use the most current ICD revision for national and international recording and reporting mortality and morbidity statistics" (WHO n.d.).

## 3. Eponymous terms and terminology variation

Even though medical terminology is controlled and regulated to an extent, term variation is one of its characteristic features – as is the case in other domain-specific languages (*cholelithiasis = gallstone disease*, *atrioventricular bundle = bundle of His*). One of the undeniably prominent types of variants of medical terms is the category of eponymous terms, that is, terms named after people, places etc. These seem to carry the history of medicine (see Matteson and Woywodt 2006: 1328), since they commemorate researchers who discovered, described or studied diseases and their symptoms, or developed treatments and tools (*Parkinson's disease*, *Down syndrome*, *Babinski sign*, *Heimlich manoeuvre*, *Babcock forceps*). In fact, eponymous terms can be formed not only on the basis of the names of famous researchers but also toponyms, i.e. place names (*Zika virus*) or names of mythical characters (*Othello syndrome*, *Achilles tendon*). Eponyms may be used internationally (*Alzheimer's disease*) or not (*choroba Leśniowskiego-Crohna* in Polish vs *Crohn disease* in English or *odczyn Biernackiego*, a Polish eponymous term for *erythrocyte sedimentation rate*).

Terminology variation may depend "on the social and ethnic criteria in which communication among experts and specialists can produce different terms for the same concept and more than one concept for the same term" (Faber Benítez 2009: 113), while the development of terminology policies involves the participation of its stakeholders in the process (Drame 2015: 507-519). A case in point, as much as eponyms both facilitate com-

munication and are part of status negotiations in the medical community, medical journal editors and medical colleges are advising against using some, though not all of them (Matteson and Woywodt 2006: 1328). Eponymous terms are criticised for failing to meet the rigours of controlled terminology, for incorrectly crediting the researcher who should be remembered for a given finding (see the Discussion section for examples), and for bearing the names of researchers who have violated the principles of medical and universal ethics, or have committed crimes against humanity while conducting their research (Matteson and Woywodt 2006: 1328, Thomas 2016: 295). These infamous eponyms are discussed in this paper.

This study focuses on the eponymous variants of medical terms, and specifically on the eponymous terms named after the perpetrators of Nazi crimes against humanity or individuals who were enthusiastic supporters of the Nazi regime. Its aim is to analyse if these eponyms were included in ICD-10 and if they were transferred into the new 11th version of the Classification. To this end, I conducted a literature review and compiled a list of eponymous terms, which are presented below together with alternative terms and brief accounts of the researchers' involvement in forced sterilisation and euthanasia under the T4 project or other unethical research to illustrate the scale of their transgressions. In the next step, I searched for these eponyms in ICD-10 in the English, Spanish, French, German and Polish versions and in the ICD-11 version in English, as other language versions had not yet been published at the time of this study.

## 4. Medical eponyms associated with the Nazi regime

### 4.1. Hans Reiter

Eponymous term: Reiter syndrome (Reiter's syndrome, Reiter's disease)
Alternative terms: reactive arthritis, infectious uroarthritis

The disease "Reiter's syndrome" was named after the German physician and scientist, Hans Conrad Reiter. During the inter-war period, Reiter's research in the Weimar Republic earned him great respect from the international scientific community. The primary source of controversy around the eponymous term named after Reiter is his further career in Germany. In 1933, two years after joining the Nazi Party (NSDAP), he was appointed head of the Kaiser Wilhelm Institute of Experimental Therapy, and later became Director of the Ministry of Hygiene, and President of the Reich Health Office which was responsible for the forced sterilisation and euthanasia of thousands of psychiatric patients (Wallace and Weisman 2003: 208–230, Weisz 2011: 91–93). He participated in deadly experiments on Jewish, Russian and British prisoners in the Buchenwald concentration camp. Reiter was sentenced to prison at the Nuremberg trials (Wallace and Weisman 2003: 208–230, Weisz 2011: 91–93), but the eponymous term formed after his name has remained in use and its replacement with an alternative is still in progress. In 1999, the American College of Rheumatology issued guidelines for the treatment of the disease, referring to it as *reactive arthritis* (Cheeti, Chakraborty and Ramphul 2020, Weisz 2011: 91–93, Wallace and Weisman 2003: 208–230, Kwiatkowska, Filipowicz-Sosnowska 2009: 1). The use of the eponymous term now seems to be in a rather undynamic decline (see the Discussion section).

### 4.2. Hans Eppinger

Eponymous terms: Cauchois-Eppinger-Frugoni syndrome; Eppinger's spider naevus
Alternative terms: portal vein thrombosis; star (spider) angioma (see Sand et al. 2010, Thomas 2016: 296)

Hans Eppinger (1879–1946) was an Austrian internist, professor, and director of an internal medicine clinic in Vienna. He conducted seawater potability experiments on Gypsy prisoners

in the Dachau concentration camp. The inmates were forced to drink only seawater before severe dehydration developed, which resulted in the prisoners' deaths (Cohen Jr 2010: 694, Strous and Edelman 2007: 207–208).

### 4.3. Julius Hallervorden

Eponymous term: the Hallervorden-Spatz disease
Alternative terms: pantothenate kinase-associated neurodegeneration (Zeidman and Pandey 2012: 1310), neuroaxonal dystrophy, MarthaAlma Disease (Strous and Edelman 2007: 208)

As of 1 January 1938, Julius Hallervorden was a professor and the head of the neuropathology department at the Kaiser Wilhelm Institute for Brain Research (Kondziella 2009: 56–64, Strous and Edelman 2007: 208), and he worked for the Brandenburg State Hospital, which was one of the six elimination centres established under the T4 project, as a result of which "over 70,000 patients with various brain diseases were killed by barbiturate injections or gassing with carbon monoxide" (Kondziella 2009: 57). According to his own accounts, during the Nazi regime, Hallervorden investigated 697 brains of euthanasia victims. There are also reports that he removed brain material himself from the victims and allegations that "he was present at the killing of more than 60 children and adolescents in the Brandenburg Psychiatric Institution on 28 October 1940" (see Kondziella 2009: 56–64, Strous and Edelman 2007: 208). The victims „were selected according to the diagnoses which were of interest to the senior physicians – in the case of Hallervorden, for example, 'idiocy', cerebral palsy, epilepsy and infantile cerebral atrophy" (Martin, Fangerau and Karenberg 2016: 240).

### 4.4. Hugo Spatz

Eponymous term: the Hallervorden-Spatz disease

Descriptive term: pantothenate kinase-associated neurodege-ne-ration (Zeidman and Pandey 2012: 1310), neuroaxonal dystrophy, MarthaAlma Disease (Strous and Edelman 2007: 208)

Hugo Spatz was a prominent German psychiatrist (1888–1969), and the director of the Kaiser Wilhelm Institute for Brain Research in Berlin-Buch. He hired Julius Hallervorden, who was, in turn, appointed director of the central morgue of the psychiatric hospitals in Berlin-Brandenburg (Martin, Fangerau and Karenberg 2016: 238–239) and, as previously mentioned, chair of the neuropathology department of the Kaiser Wilhelm Institute for Brain Research (Shevel 1992: 2214). In the early 1920s, Spatz and Hallervorden worked together and documented a brain "with excessive iron deposits in the pallidum and reticulate zone of the substantia nigra, causing progressive rigidity" (Strous and Edelman 2007: 209). This was later called the Hallervorden-Spatz disease. As of the late 1930s, Hugo Spatz and Julius Hallervorden conducted research on children killed under the T4 project. Spatz was the director of the Kaiser Wilhelm Institute, and under his direction, „the brain research institute collaborated with the killing institute at Brandenburg-Gorden, obtaining hundreds of brains from the mentally ill of all ages" (Strous and Edelman 2007: 209). Spatz was never charged with the crimes he had committed. In addition to Hallervorden-Spatz syndrome, there is another eponymous term named after Spatz – the Spatz-Stiefler reaction (Kondziella 2009: 56–64, Strous and Edelman 2007: 209).

### 4.5. Murad Jussuf Bey Ibrahim

Eponymous term: Beck-Ibrahim disease (Strous and Edelman 2007: 208)

Murad Jussuf Bey Ibrahim (1877–1952) was an Egyptian professor of paediatrics, educated in Berlin, who specialised in neonatal gas-trointestinal disorders and central nervous system

disorders in children. According to reports, he became actively involved in killing sick and mentally ill children in 1941 (Strous and Edelman 2007: 208).

### 4.6. Eduard Pernkopf

Eponymous title: Pernkopf Anatomy (atlas)

Pernkopf (1888–1955) was a professor of anatomy at the University of Vienna and a member of the Nazi Party. In 1938, following Hitler's invasion of Austria, he was promoted to dean of the medical school at the University of Vienna. Pernkopf was involved in the expulsion of the school's Jewish staff, which resulted in the dismissal of 153 out of 197 faculty members, including three Nobel laureates (Strous and Edelman 2007: 208–209). During this period, he started writing the anatomy atlas, which was later widely and highly valued for its exceptionally detailed mapping of the human body. In his work on the atlas, Pernkopf used the bodies of over a thousand people executed by the Gestapo (Strous and Edelman 2007: 208–209).

### 4.7. Hans Joachim Scherer

Eponymous term: Van Bogaert-Scherer-Epstein syndrome
Descriptive term: cerebrotendineous xanthomatosis (Strous and Edelman 2007: 208, Kondziella 2009: 57, Thomas 2016: 296), cerebrotendinous cholesterosis (ICD-10), bile acid synthesis defect with cholestasis (ICD-11)

Scherer (1906–1945) was a German neuropathologist involved in the Nazi euthanasia project at the Neurology Institute in Breslau, Silesia, where he participated in investigating the brains of over 300 Polish and German children euthanised in the Loben Psychiatric Clinic for Youth (Strous and Edelman 2007: 208–209).

### 4.8. Walter Stoeckel

Eponymous terms: Goebell-Stoeckel-Frangenheim operation, Schauta-Stoeckel operation, Stoeckel's operation, Kelly-Stoeckel suture (Strous and Edelman 2007: 208–210)

Walter Stoeckel (1871–1961) was a renowned German gynaecologist and obstetrician, professor and chair of the Berlin Charite Hospital's gynaecology department. Stoeckel supported the Nazi regime, for instance, by not assisting his Jewish colleagues and was personally responsible for the expulsion of Jewish doctors from the German Society of Gynecology while he was its president (1933–34). He was very friendly with the Nazi regime, and he delivered one of Magda Goebbels' children. Stoeckel was not, however, directly or actively involved in the Nazi crimes against humanity (Strous and Edelman 2007: 210).

### 4.9. Friedrich Wegener

Eponymous term: Wegener's granulomatosis
Descriptive term: granulomatosis with polyangiitis

Friedrich Wegener (1907–1990) was a German pathologist and a dedicated Nazi. He joined the Sturmabteilung as early as 1932, then a year later, he joined the Nazi party. He was a pathologist in the Lodz ghetto. There is a suspicion that Wegener may have been involved in unethical activity at that site, but there is no conclusive evidence (Strous and Edelman 2007: 210). The only evidence that was found points to him performing autopsies on prisoners who died in transport (Woywodt and Matteson 2006: 1303–1306). After the war, his case was investigated, and he was imprisoned, but he was not judged in a trial and continued to work for years. The term *Wegener's granulomatosis* remains in use (Strous and Edelman 2007: 210).

### 4.10. Franz Joseph Kallmann

Eponymous term: Kallmann syndrome

Franz Joseph Kallmann was a psychiatrist born in 1897 in Neumarkt, Silesia, Germany. His connection with the Nazi regime is more of an influence or instigation rather than the direct perpetration of physical acts on patients or prisoners:

> The law stipulated that 200 Genetic Health Courts be established nationwide where teams of lawyers and doctors would review medical records and select individuals with heritable diseases (defined as congenital feeble-mindedness, schizophrenia, manic depression, hereditary epilepsy, Huntington's chorea, hereditary blindness, hereditary deafness, and serious physical deformities) for voluntary or forced sterilisation. [...]. Kallmann proposed that the program be extended to relatives of individuals with schizophrenia in order to identify also non-affected carriers (that is, those with minor anomalies) for compulsory sterilisation (Benbassat 2016: 2).

### 4.11. Max Clara

Eponymous term: Clara cells
Alternative terms: bronchiolar exocrine cell (exocrinocytus bronchiolaris or club cell) (Buttner, Lee and Cadogan 2020: 30)

Max Clara (1899-1965) was an active supporter of Hitler's party. Clara himself admitted that he conducted his study on samples obtained from a prisoner (Buttner, Lee and Cadogan 2020: 30) or prisoners (Winkelmann and Noack 2010: 274) executed by the Nazis. He presented a new cell type in the terminal bronchiole in a paper he published in 1937. Clara reported that he used material specially preserved after the executions, which "had given him an advantage over previous researchers" (Winkelmann and Noack 2010: 274).

### 4.12. Franz Seitelberger

Eponymous term: Seitelberger disease (sudanophilic leukodystrophy of the Seitelberger type)

Franz Seitelberger was not involved in the planning or execution of the Nazi euthanasia programme, however, he was its beneficiary. His PhD, written in 1954 under the supervision of Julius Hallervorden, was based on a study of the brains of three euthanasia victims from the Landesanstalt Görden in Brandenburg. Sudanophilic leukodystrophy of the Seitelberger type was reported in the dissertation (Kondziella 2009: 60).

### 4.13. Hans Gerhard Creutzfeldt

Eponymous term: Creutrzfeldt-Jakob disease
Alternative term: subacute spongiform encephalopathy

Hans Gerhard Creutzfeldt was a German neurologist and neuropathologist whose relationship with and attitude toward the Nazi regime could be described as ambivalent: he had made it clear that he disliked Nazi policies, but he became an associate member of the SS. What is more:

> during the Second World War, he was director of the Clinic for Psychiatry and Neurology in Kiel, Germany, from which over 600 patients were transported to provincial hospitals in Schleswig-Holstein where many of them – predictably – lost their lives as part of the T4 operation. Creutzfeldt prevented the transportation of patients, however, much less frequently than previously thought (Kondziella 2009: 62).

Creutzfeldt's scientific contribution to the description of Creutzfeldt-Jakob disease has been disputed.

### 4.14. Hans Asperger

Eponymous term: Asperger's syndrom

Hans Asperger, according to Daniel Kondziella, "was accused on uncertain grounds of harbouring sympathy for Nazi politics. Cautiously defended mentally disabled children" (2009: 59). Although he was portrayed as a defender of his patients, his role in the T4 euthanasia project was problematic (Czech 2018: 9–29). He referred a number of children with mental disabilities to Am Spiegelgrund, a clinic in Am Steinhof, a major psychiatric hospital in Vienna. At least 789 children died in that clinic between July 1940, when the clinic was established, and the fall of the Third Reich, and many of them were killed with:

> a barbiturate, frequently dissolved in cocoa. […] Those who survived were given repeated doses of the drug and denied food, and died slowly from starvation or infections such as pneumonia (Slagstad 2019).

Except for classified, top-secret documents, the official hospital records did not explicitly mention the euthanasia of the mentally disabled patients, so there is no direct evidence that Asperger knowingly referred patients to death. However, he must have not only been aware of euthanasia but also seen it "as an acceptable last resort for children with severe disabilities" (Slagstad 2019: 8).

## 5. Eponymous terms associated with the Nazi regime in ICD-10

Of all the eponymous terms presented above, seven were found in ICD-10. Of course, such terms as *Clara cells* or *Kelly-Stoeckel suture* or the title *Pernkopf Atlas* could not have been included, as they are not the names of diseases. Only one of the eponymous terms presented above is included as a disease named in

ICD-11, and that is Creutzfeldt-Jakob. Table 1 lists the seven eponymous terms in ICD-10 with their alternative variants and counterparts in the Spanish, French, German and Polish versions of the Classification. As mentioned before, only the English version of the eleventh edition has been published to date. The eponymous variants are used quite consistently in different language versions. What can be noticed, however, is that the French version of ICD-10 includes the term *syndrome oculo-urétro-synovial* with the addition "Fiessinger-Leroy-Reiter" in parenthesis, which reflects the contributions of Noel Fiessinger and Edgar Leroy to research into reactive arthritis (see the Discussion section). A trace of the trend of departing from eponyms in ICD-10 is seen in the case of cerebrotendinous cholesterol – a non-eponymous term is listed with its eponymous variant provided in parenthesis in all language versions of ICD-10. In ICD-11, a search for the eponymous term *Van Bogaert-Scherer-Epstein syndrome* leads to *bile acid synthesis defect with cholestasis*. Consequently, the eponymous term can be used as a search word but it is not listed as the name of the disease. The same is observed for „Reiter", „Hallervorden", "Spatz", "Wegener", "Kallmann", and "Asperger" – the user can type them in and obtain search results which will not, however, be eponymous terms (see Figure 1). This feature is also active in searches for non-eponymous terms which were used in ICD-10 but are no longer listed in ICD-11, for instance: *childhood disintegrative disorder*. The overall result of this study indicates that the eponymous terms associated with the Nazi regime are replaced with alternatives or removed from the 11th version of the International Classification of Diseases in all cases, except for the *Creutzfeldt-Jakob disease*.

**Table 1**

Eponymous terms related to the Nazi regime in ICD-10 versus ICD-11

| Eponym | **Hallervorden-Spatz syndrome/ disease** | **Reiter's disease/ syndrome** | **Van Bogaert-Scherer-Epstein syndrome** |
|---|---|---|---|
| Descriptive term | Neuroaxonal dystrophy or "Martha Alma Disease | Reactive arthritis or infectious uroarthritis | Cerebrotendinous xanthomatosis |
| ICD-10 EN | G23.0 Hallervorden -Spatz disease | M02.3 Reiter disease | Cerebrotendinous cholesterosis [van Bogaert-Scherer-Epstein] (in section E75.5 Other lipid storage disorders) |
| ICD-10 ES | Enfermedad de Hallervorden–Spatz | Enfermedad de Reiter | Colesterosis cerebrotendinosa [van Bogaert-Scherer-Epstein] |
| ICD-10 FR | Maladie de Hallervorden-Spatz | Syndrome oculo-urétro-synovial [Fiessinger-Leroy-Reiter] | Cholestérose cérébro-tendineuse [van Bogaert-Scherer-Epstein] |
| ICD-10 GER | Hallervorden-Spatz-Syndrom | Reiter-Krankheit | Zerebrotendinöse Xanthomatose [van-Bogaert-Scherer-Epstein-Syndrom] |
| ICD-10 PL | Choroba Hellervordena-Spatza | Choroba Reitera | Cholesteroloza mózgowo-ścięgnowa [van Bogaerta-Scherera-Epsteina] |
| ICD-11 EN | 5C64.10 Iron overload diseases | FA11.2 Arthropathy following genitourinary infection (parent term: FA11 Reactive arthropathies) | 5C52.11 Bile acid synthesis defect with cholestasis |

| Eponym | **Wegener's granulomatosis** | **Kallmann syndrome** | **Asperger syndrome** | **Creutzfeldt Jakob disease** |
|---|---|---|---|---|
| Descriptive term | Granulomatosis with polyangiitis | — | see discussion | subacute spongiform encephalopathy |
| ICD-10 EN | M31.3 Wegener granulomatosis | Kallmann syndrome (in section E23.0 Hypopituitarism) | F84.5 Asperger syndrome | A81.0 Creutzfeldt-Jakob disease |
| ICD-10 ES | Granulomatosis de Wegener | Síndrome de Kallmann | Síndrome de Asperger | Enfermedad de Creutzfeldt-Jakob |
| ICD-10 FR | Granulomatose de Wegener | Syndrome de Kallmann | Syndrome d'Asperger | Maladie de Creutzfeldt-Jakob |
| ICD-10 GER | Wegener-Granulomatose | Kallmann-Syndrom | Asperger-Syndrom | Creutzfeldt-Jakob-Krankheit |
| ICD-10 PL | Ziarniniakowatość Wegenera | Zespół Kallmana | Zespół Aspergera | Choroba Creutzfeldta-Jakoba |
| ICD-11 EN | 4A44.A1 Granulomatosis with polyangiitis | — | see discussion | Creutzfeldt-Jakob disease |


**Figure 1**
ICD-11 browser screen captures with eponyms used as search words leading to non-eponymous terms

## 6. Discussion

According to the results of studies focusing on the use of the term *Hallervorden-Spatz disease* used "in vivo", the eponymous variant seems to be in decline, especially when we consider its unqualified use, defined as not referring to "the eponym's disfavoured use", both in articles and in textbooks (Zeidman and Pandey 2012: 1310). There is also a trend in departing from the

unqualified use of the eponymous term *Reiter syndrome*, but it can still be found in textbooks, curricula and journals (Keynan and Rimar 2008: 256-258). The problem with that term is multifaceted: first, the name commemorates a scientist who was engaged in the Nazi forced sterilisation and euthanasia programmes, and second – it does not really take into account the contribution of other researchers to the description of this disease. It was characterised not only by Hans Reiter in his publication of 16 December 1916, describing a study that began in August earlier that year, but also by Noel Fiessinger and Edgar Leroy in their paper of 8 December 1916, presenting the results of studies conducted between July and October 1916. Both publications focused on the characteristic triad of symptoms which was observed on both sides of the WWI front (Matteson and Woywodt 2006: 1328, Weisz 2011: 91-93). Nearly a century earlier, Sir Benjamin Brodie had described five cases of the same triple syndrome with accurate clinical details (Weisz 2011: 91-93). The disease was named *Reiter('s) syndrome* after Hans Conrad Reiter, who most likely could not have known about the publication of the French researchers, but could (but did not have to) have access to and get acquainted with the reports of Brodie, for example, when he was conducting his research in London (Weisz 2011: 91-93). So, the eponymous term is problematic because it does not credit all researchers adequately, and the person who is credited, violated ethical rules, including the *primum non nocere* principle, which supposedly shapes the attitudes toward medical practice and research.

In the case of the term *Asperger('s) syndrome*, the ICD-11 has updated the diagnostic criteria of autism to comply with the DSM-5 (Diagnostic and Statistical Manual of Mental Disorders) published in 2013 by the American Psychiatric Association, which is why it includes Asperger's Syndrome, along with Childhood Disintegrative Disorder and certain other generalised developmental disorders, within the category of *Autism spectrum disorder without disorder of intellectual development and with mild or no impairment of functional language* (Autism Europe

2018). Consequently, the change in this case is dictated by the change in diagnostic criteria.

It is worth noting that none of the eponymous terms listed in ICD-10 as discussed above were coined as a direct result of Nazi crimes against humanity. In fact, the *Clara cell*, (not listed in ICD since it is not a name of a disease),

> is the only "Third Reich eponym", for which not only the person but the discovery itself is clearly linked to the Nazi system. In the cases of Reiter's disease and Hallervorden-Spatz disease, the eponymous discovery was made long before the Nazi era while Wegener's first description of "his" granulomatosis in 1939 had no connection to Nazi atrocities (Winkelman and Noack 2010: 725).

Additionally, in all likelihood, the eponym *Clara cell* was first used after the war, in 1947 (Winkelman and Noack 2010).

There are conflicting approaches to eponymous terms, ranging from favourable to calling for their complete abolition:

> Because of the extensive use of English as an international language of medicine, English language *publications* have a particular responsibility to eliminate eponym use and standardise medical terminology. It is time to leave eponyms behind and confine them to their deserved places in the archives of medical history (Matteson and Woywodt 2006: 1329).

The opponents of eponymous terms mention three problem areas: a lack of scientific accuracy, a failure to reflect scientific discoveries and, connected with the subject of this paper, a commemoration of war criminals (Woywodt and Matteson 2007: 424). The revelations of Hans Reiter's active involvement in the Nazi crimes have led to the declining use of the term "Reiter's disease". Other eponymous terms may also be subject to this trend:

> Prompted by our revelations about Friedrich Wegener, the Vasculitis Foundation of North America stated: "As patients and family members, we would prefer a different name for our disease" (unpublished letter to Lancet 2006 in Woywodt and Matteson 2007: 424).

Eponymous terms may be considered imprecise as they are usually named after one person (sometimes two or three), while scientific findings are, in fact, the result of a group effort, quite often over a period of time:

> Behçet's disease serves as an example: Hulushi Behçet recognised the disease in 1937, but Benedictos Adamantiades described a case of the disease in 1930. [...] To acknowledge everyone who discovered facets of the disorder, we would have to name it Hippocrates-Janin-Neumann-Reis-Bluthe-Gilbert-Planner-Remenowsky-Weve-Shigeta-Pils-Grütz-Carol-Ruys-Samek-Fischer-Walter-Roman-Kumer-Adamantiades-Dascalopoulos-Matras-Whitwell-Nishimura-Blobner-Weekers-Reginster-Knapp-Behçet's disease (Woywodt and Matteson 2007: 424).

Eponymous terms are not particularly convenient in interlingual communication, not only due to their varying range (with some used internationally, while others are known and used in one country only) but also due to the grammatical differences in the forms of eponymous terms, which may prove to be inconvenient in the translation and editing process:

- in English with or without Saxon genitive depending on the convention adopted by a journal or Classification;
- in Latin, *Accusativus singularis: ligamentum Bertini, fractura Collesi, tuberculum Listeri, os Vesali* but also *Canalis facialis Fallopiae*;
- in German, the nominative case (singular): *His'sches Bundel,*
- in Spanish: *cuerpos de Shiller-Duval, tumor de Koenen, celulas de Hodgkin, enfermedad de Wilson*;
- in French: *Line de Damoiseau* (Pilarz, Bajor and Bulska 2013: 339).

Although the use of eponyms may be inconsistent and sometimes controversial, they are valued for adding colour to medicine and serving as a convenient form of "medical shorthand" (Whitworth 2007: 245). They also embed medical traditions and culture into history. Judith Whitworth (2007: 245) deems replacing all eponymous terms with descriptive ones as being an unrealistic goal and shares other concerns related to replacing or even abolishing eponymous terms:

> Who would determine acceptability? […] Would the heinous behaviour need to be proved in a court of law or merely rumoured? […] Can we still use them in the sciences that enable medicine? Do we get rid of Avagadro's number, Boyle's law, the joule, the kelvin, the hertz?

Medical eponymous terms are still quite common, although the number of scientific papers in which they are used is decreasing, which may be related not so much to their waning popularity, but to the changes in trends of the popularity of various subjects in medical research (Thomas 2016: 297). The most common eponyms, (salmonella, Alzheimer's disease, Parkinson's disease, Escherichia) are likely to remain in use, as they are well-established and seem too widespread to be removed from both specialised and general language. Moreover, such an undertaking would not actually bring any benefits in terms of communication efficiency (see Thomas 2016: 297). The variety of eponyms used in scientific works is also decreasing. The frequency of eponymous terms named after perpetrators who engaged in unethical research, sterilisation or euthanasia programs during the Second World War, has definitely decreased (Thomas 2016: 297).

## 7. Conclusion

The results of the comparison between ICD-10 and ICD-11 point to the declining presence of eponymous terms associated with

the Nazi regime in the World Health Organization's Classification. This is in line with the attitudes of a number of scholars and journal editors who have called for the abolition of such terms on the grounds that

> it is the essence of medical practice that it exists solely for the benefit and health of the patient; and if no such benefit is to be derived it should be withheld. Primum non nocerer – first do no harm – is the fundamental principle taught to all physicians for centuries. […] Indeed, codes of ethics – all addressing the primary importance of care to the benefit of patients – are nearly universal among medical societies (Rosner 2008: 296).

The process of replacing controversial eponymous terms with alternative variants is complicated and disputed. It seems that it is progressing, and we can expect that the changes in the International Classification of Diseases may contribute to the further decline in the use of the discussed medical eponymous terms. This process showcases how terminology variation is connected with a broader context: the social, historical and even ethical dimensions in which stakeholders in forming terminology policies operate.

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Wioleta Karwacka
ORCID: 0000-0002-8540-4535
University of Gdańsk
Institute of English and American Studies
Wita Stwosza 51
80-308 Gdańsk
Poland
wioleta.karwacka@ug.edu.pl