

Case reports in the Lancet: From neurophobia to global pandemics

Case reports were published in the Lancet from 1995 until 2017. When examined longitudinally, these reports provide a unique glimpse into changing trends in the practice of medicine and the sort of cases deemed by the editors to “contain a learning point of use to the junior doctor, perhaps with wider applicability and appeal.”¹

In our letter of 2003, we reported that neurological cases were overrepresented when we examined 257 issues

of the Lancet from 1996 to 2002.² This was suggested to reflect the general sense of trepidation often associated with neurological syndromes, which contributes to the wider phenomenon referred to as “Neurophobia”.^{3–5} Since, two additional analyses, of case reports published between 2003–2008 and 2008–2009, reached a similar conclusion.^{1,6}

We decided to revisit this observation as we reviewed issues of the Lancet from 2009 to the end of 2017, when

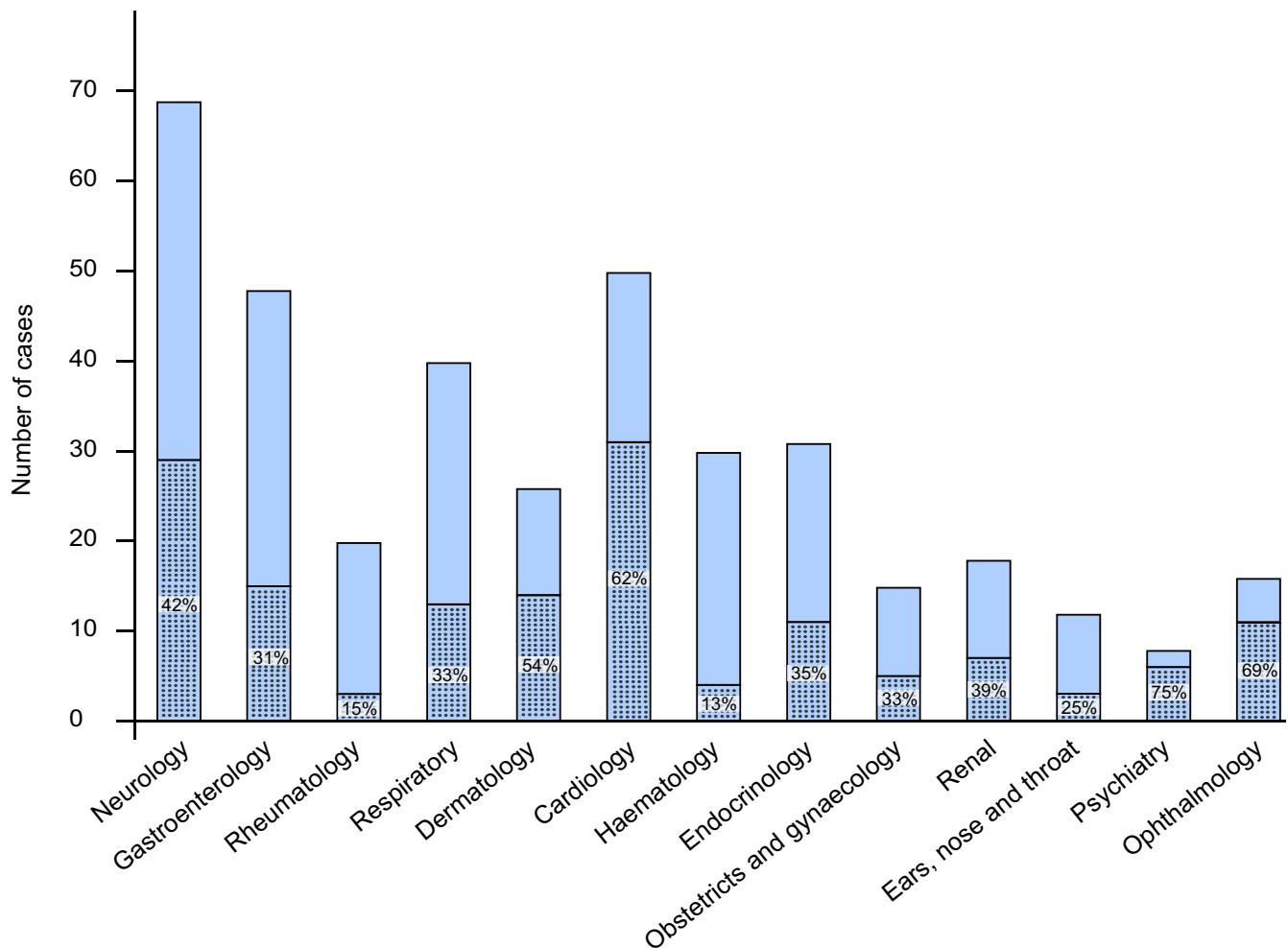


FIGURE 1 Lancet Case Reports by organ system and proportion of same specialty authors. Dotted areas indicate the percentage of reports by authors in the same specialty (based on affiliation of first author). 352 case reports: January 3, 2009 to November 4, 2017

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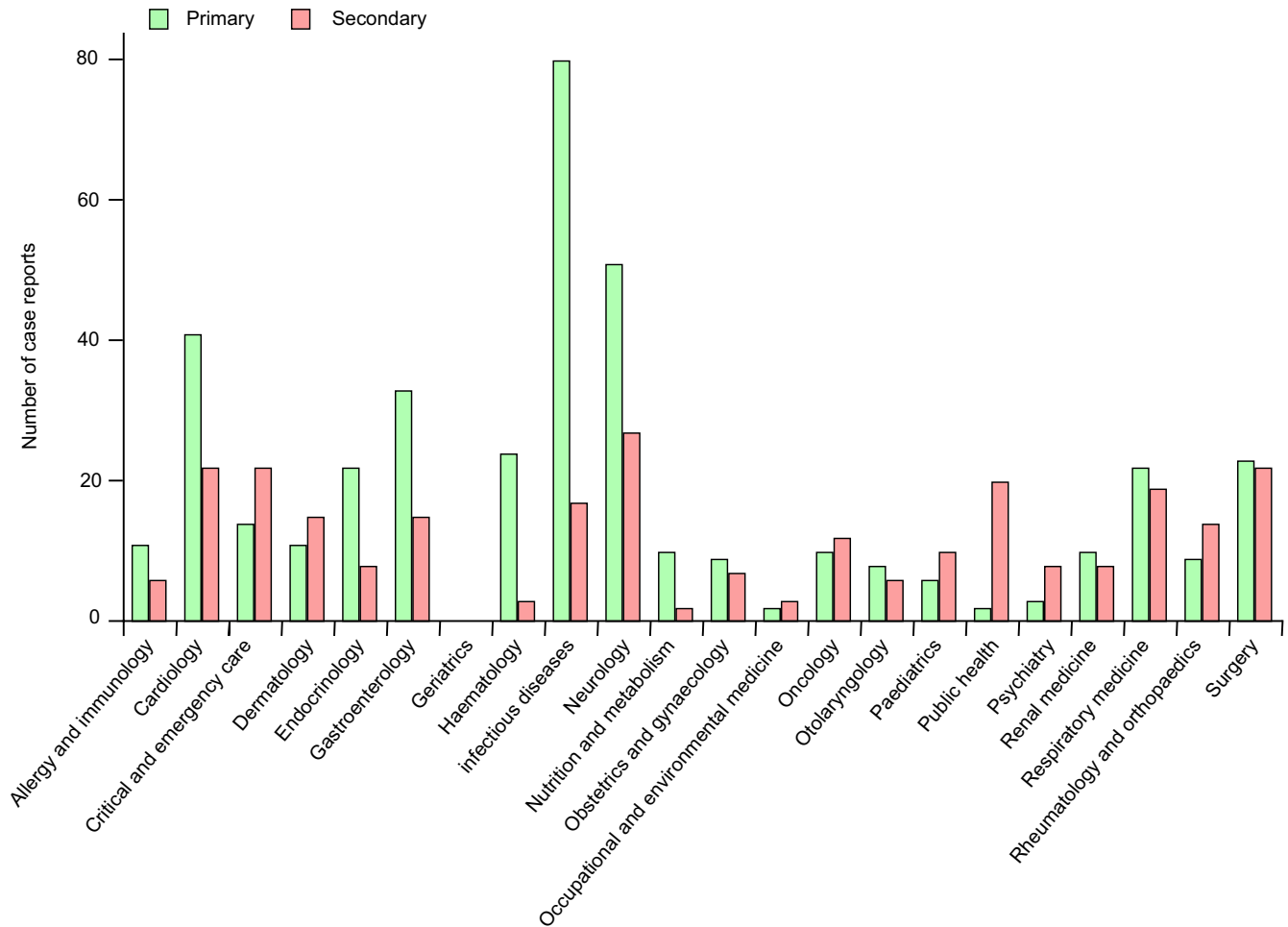


FIGURE 2 Lancet Case Reports according to expanded classification. 352 case reports: January 3, 2009 to November 4, 2017

Specialty	1996–2002 (n = 523)	2003–2008 (n = 360)	2009–2017 (n = 469)
Neurology	152 (29%)	93 (27%)	77 (20%)
Gastroenterology	76 (15%)	44 (13%)	48 (12%)
Rheumatology	47 (9%)	28 (8%)	20 (5%)
Respiratory	45 (9%)	25 (7%)	41 (10%)
Dermatology	40 (8%)	29 (8%)	27 (7%)
Cardiology	36 (7%)	31 (9%)	50 (13%)
Hematology	32 (6%)	19 (5%)	30 (8%)
Endocrinology	32 (6%)	25 (7%)	31 (8%)
Obstetrics and Gynecology	19 (4%)	13 (4%)	16 (4%)
Renal	13 (3%)	15 (4%)	18 (5%)
Ears, nose, and throat	10 (2%)	10 (3%)	12 (3%)
Psychiatry	9 (2%)	9 (2.5%)	8 (2%)
Ophthalmology	7 (1%)	9 (2.5%)	16 (4%)
Other	5	10	75

TABLE 1 Breakdown of Cases by Specialty using the thirteen-organ system classification

Note: Percentages (excluding Other) for each specialty in 1996–2002, 2003–2008 and 2009–2018 are shown.

If appropriate, some cases were classified under two categories (see text).

the last case report in its original format was published, examining a total of 352 cases. Similar to previous studies, cases were analyzed based on the patient's clinical signs and symptoms and primary diagnosis. To allow comparison with previous studies, we used two different classification systems: the thirteen-organ system classification that we used in our original analysis of 2003 (Figure 1) and a second expanded classification taking into account primary and secondary specialties as used in a subsequent study that reached similar results¹ (Figure 2).

At the outset, two trends were evident: first, the excess of case reports that do not fit under one discrete category of the original organ-based classification (shown under “other” in Table 1). Some of these case reports are of infectious etiology, while others mirror recent advancements in biomedical research that are not, by definition, organ-specific (such as genomic medicine and immunotherapy).

These patients and their multifaceted stories highlight more than anything the multidisciplinary nature of modern-day medical practice—one that incorporates different areas of expertise and a range of diagnostic methods and technologies. This also underscores the need for comprehensive patient care and a complementary strategy to medical practice and post-graduate medical education that goes beyond the single-disease single-specialty paradigm^{7–9}

The second evident trend was the wider representation of countries from where case reports were submitted (Figure 3) when compared to the analysis of 2010. This echoes a growing interest that followed recent outbreaks of infectious pathogens (such as Ebola and Zika viruses), as well as a conscious decision on the part of the editors to publish cases pertaining to medical care in low- and middle-income countries.¹ The importance of this cannot be overemphasized especially in this period—when the

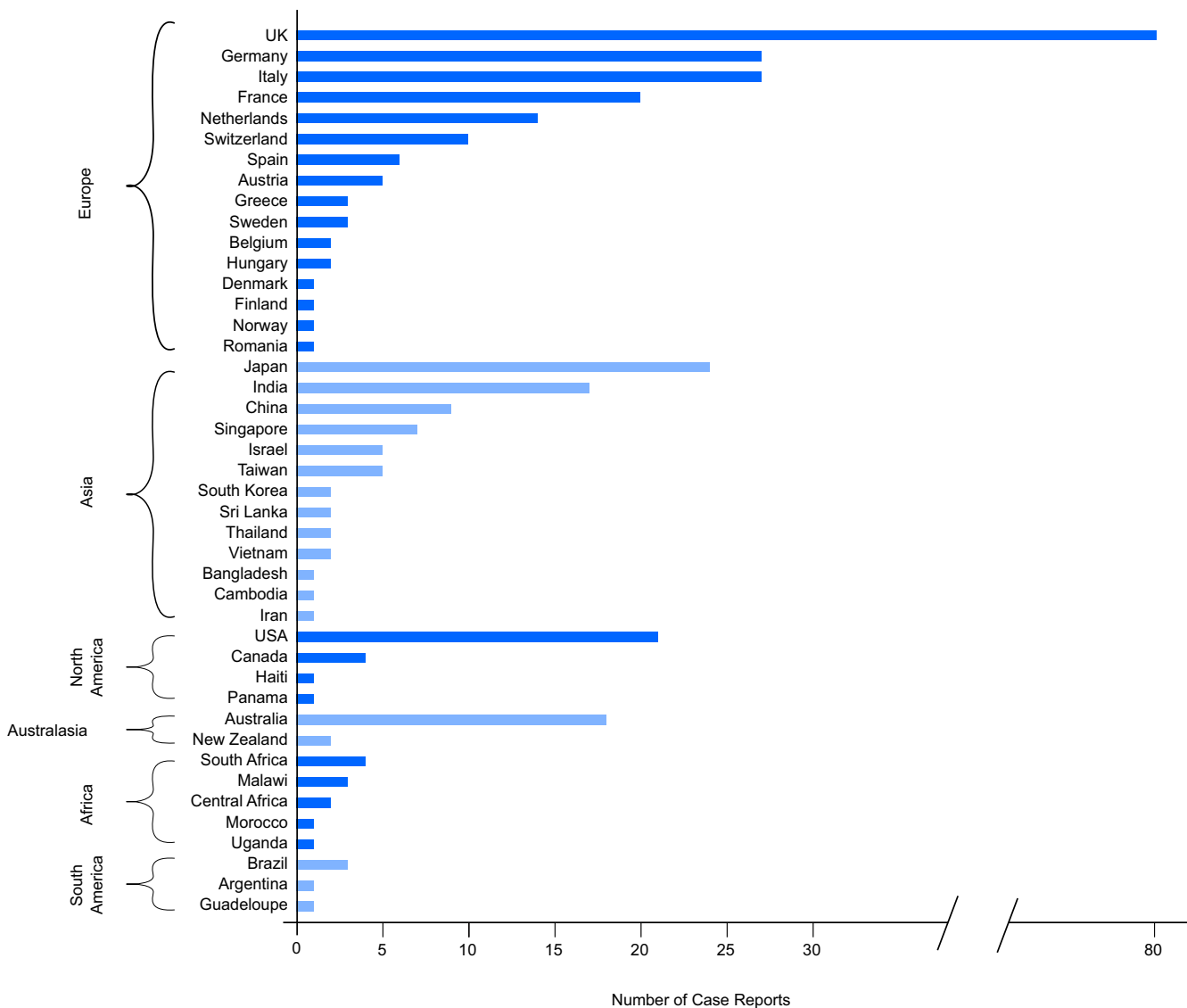


FIGURE 3 Lancet Case Reports by country of origin

world is still in the midst of a global pandemic that has taken a great toll on patient lives and healthcare resources.

Perhaps unsurprisingly, neurology remains the best-represented specialty among all cases assessed. However, when compared to the two previous analyses and using the same organ-based classification system, the percentage of neurological cases has decreased and the overall distribution by specialty has significantly changed as confirmed by Chi-square test, even when the “other” category was excluded (Table 1). Moreover, unlike our previous analysis, the proportion of neurological cases reported by non-specialists was not significantly different from the overall average (42% vs. 40%). Interestingly, it was Hematology and Rheumatology that had a tendency to be reported by non-specialists, with only 13% and 15% of cases reported by specialists in the respective field (Figure 1).

The landscape of medical practice has expanded dramatically since the first case report appeared in the *Lancet* in 1995. Increasing mechanistic understanding of disease processes, along with the multi-morbidity that characterizes our aging population pose new challenges to the way medicine is structured and taught. Emerging infectious agents, coupled with increased human mobility, underscore the global nature of modern medical practice—which can no longer be defined within strict geographic boundaries. This is evident more than ever now, as countries across the globe are registering record numbers of COVID-19-related deaths more than a year after the first cluster of cases was reported in Wuhan City in the Hubei Province of China.

KEYWORDS

clinical education, global medicine, *Lancet Case Reports*, multi-morbidity, neurophobia

ACKNOWLEDGMENTS

We thank all the patients whose published case reports were reviewed for this manuscript.

CONFLICT OF INTEREST

AJC received personal fees, honoraria for consulting and travel expenses for attending meetings from Genzyme. BOD, PJB, and HSM have nothing to disclose.

AUTHOR CONTRIBUTIONS

AJC and HSM conceived the idea and planned the analysis. BOD, PJB, and HSM reviewed the cases, analyzed the data, interpreted the results, and drafted the original manuscript. HSM critically revised the final manuscript and supervised the project.

CONSENT


None. Cases reviewed for this manuscript have already been published.

FUNDING INFORMATION

HSM is supported by the Rosetrees Trust (RG82826; A1058, M589).

DATA AVAILABILITY STATEMENT

None.

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