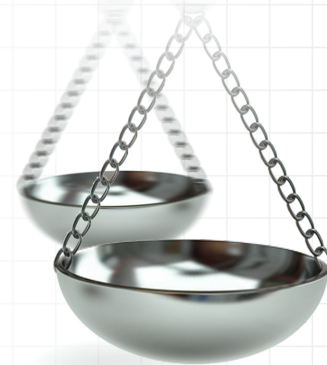




Introducing Volume 8 of the *Journal of Comparative Effectiveness Research*

Laura Dormer^{*,1}

¹ Commissioning Editor – *Journal of Comparative Effectiveness Research*, Future Medicine Ltd, Unitec House, London, N3 1QB, UK

*Author for correspondence: l.dormer@futuremedicine.com

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Welcome to the eighth volume of the *Journal of Comparative Effectiveness Research* (JCER). Every year it is interesting to look back over the previous year's content, as this provides us with a glimpse of the various interesting directions the field is moving in. Below I will discuss some of 2018's most popular articles, and also look forward to what 2019 has to bring, in this issue and beyond.

In this issue

Personalized and precision medicine continues to be a hot topic across many disciplines; however, many diagnostic tests and biomarkers are prevented from being adopted for use in healthcare systems due to a lack of evidence regarding their cost–effectiveness. This issue of JCER starts with a methodology article by Ling *et al.* that describes a stepwise approach to conducting cost–effectiveness analyses, performed early in the development of a technology to help reduce the potential risks of investment [1].

The remainder of the issue includes a range of interesting original research. Hsu *et al.* look at quality improvement and patient safety programs, which can often be suboptimal due to resource constraints [2]. The authors used an external, secondary database – the Society of Thoracic Surgeons Adult Cardiac Surgery Database – to evaluate the Cardiovascular Surgical Translational Study (CSTS). This was a quality improvement and patient safety program aimed at reducing hospital-acquired infections and improving patient safety within hospitals' various cardiac surgery units. The authors compared CSTS hospitals with matched comparison hospitals to assess the impact of the CSTS.

Attention-deficit/hyperactivity disorder is a very common neurodevelopmental disorder, with onset most commonly occurring in childhood. In their study, Du *et al.* assess the validity and reliability of the Dundee Difficult Times of the Day Scale, a ten-question rating scale used by parents to assess their child's functional impairment throughout the day [3]. The authors compare the Dundee Difficult Times of the Day Scale with two general rating scales for the general assessment of attention-deficit/hyperactivity disorder.

Real-world evidence continues to be an important source of information in outcomes research, and in the next research article, Feldman and colleagues examine real-world adherence and costs of apremilast compared with biologic agents in US psoriasis patients [4].

Next, Priyadarshini *et al.* examine the comparative outcomes of methods to induce labor – an intervention that has been reported by the WHO to be used in 25% of all deliveries in developed countries [5]. In this study, the authors compare the outcomes of a combination of the Foley bulb and misoprostol, with misoprostol alone, for induction of labor.

In the final article of this issue, Murray and colleagues assess the cost–effectiveness of a range of treatments for overactive bladder, compared with best supportive care [6]. Overactive bladder has been reported to occur in 16.9% of women and 16.0% of men in the USA, with prevalence increasing with age. The condition has important implications for both health-related quality of life and healthcare expenditure; therefore, understanding the cost–effectiveness of the available treatment options is critical for informing treatment decisions.

Content highlights of 2018

As in previous years, we have taken a look back over the content published in 2018 to see what topics have proved most popular with our readers (Table 1). This year once again highlighted a broad range of content types (systematic reviews, original research and opinion pieces) and topics as being important to our community.

Table 1. Top ten *Journal of Comparative Effectiveness Research* 2018 articles by readership†.

Rank	Article type	Title	Authors	Volume (issue)	Altmetric score	Ref.
1	White paper	Gene therapy: evidence, value and affordability in US health care system	Hampson G, Towse A, Pearson SD, Dreitlein WB, Henshall C	7(1)	18	[7]
2	Systematic review	Treatment of tardive dyskinesia with tetrabenazine or valbenazine: a systematic review	Caroff SN, Aggarwal A, Yonan C	7(2)	3	[8]
3	Methodology	PHEDRA: using real-world data to analyze treatment patterns and ibrutinib effectiveness in hematological malignancies	Garside J, Healy N, Besson H <i>et al.</i>	7(1)	3	[11]
4	Systematic review	Outcomes research examining treatments, quality of life and costs in HER2-negative and triple-negative metastatic breast cancer: a systematic literature review	Parisi M, Pelletier C, Cherepanov D, Broder MS	7(1)	1	[9]
5	Research article	Comparison of therapies in lumbar degenerative disc disease: a network meta-analysis of randomized controlled trials	Zigler J, Ferko N, Cameron C, Patel L	7(3)	395	[12]
6	Editorial	Developing an integrated strategy for evidence generation	Olson M	7(1)	1	[16]
7	Research article	Treatment patterns of biologics in US patients with ankylosing spondylitis: descriptive analyses from a claims database	Walsh JA, Adejoro O, Chastek B, Park Y	7(4)	1	[15]
8	Systematic review	Handling missing data in propensity score estimation in comparative effectiveness evaluations: a systematic review	Malla L, Perera-Salazar R, McFadden E, Ogero M, Stepniewska K, English M	7(3)	2	[10]
9	Perspective	Transitioning from learning healthcare systems to learning health care communities	Mullins CD, Wingate LT, Edwards HA, Tofade T, Wutuh A	7(6)	3	[17]
10	Review	Comparative cost and clinical effectiveness of clostridial collagenase ointment for chronic dermal ulcers	Waycaster C, Carter MJ, Gilligan AM, Mearns ES, Fife CE, Milne CT	7(2)	1	[18]

†As of 25 October 2018.

The most read article of 2018 (at the time of writing) has been a white paper discussing the outcomes of an Institute for Clinical and Economic Review policy forum, exploring the challenges presented by gene therapies, discussing potential solutions and presenting policy recommendations [7]. Interest in this topic is unsurprising, given the approval by the US FDA of the first gene therapy at the end of 2017, and the huge amount of interest and optimism the field of cell and gene therapies attracts.

Systematic reviews provide valuable synthesis of published research so it is unsurprising that three of the top ten most-read articles from 2018 were of this article type. The first, by Caroff *et al.*, compares treatments for tardive dyskinesia; a movement disorder sometimes caused by treatment with antipsychotics and antiemetics [8]. A second systematic review by Parisi and colleagues examines treatments, quality of life and costs in metastatic breast cancer [9]. The third, by Malla *et al.*, describes how missing data are addressed with propensity score methods in observational comparative effectiveness studies [10].

Real-world evidence is also a feature of the 2018 top ten; in a methodology paper published in the January 2018 issue, Garside and colleagues describes the Platform for Hematology in EMEA: Data for Real World Analysis (PHEDRA) – describing the main steps taken to validate and analyze independent, existing real-world data and providing background on the methodology of how the comparative evidence is generated and how the PHEDRA results can be interpreted [11].

Original research is of course some of the most important content JCER publishes, and the first example of this in our top ten provides a network meta-analysis of randomized controlled trials examining therapies for lumbar degenerative disc disease, conducted by Zigler and colleagues [12]. This paper is of particular note as it highlights a new feature introduced to JCER this year – the video abstract. For an increasingly time-constrained audience, it is vital to JCER that we are doing all we can to increase the reach of the papers we publish, and a video abstract provides authors with an opportunity to describe their work in an accessible and easily digestible format. Videos are also, of course, ideally suited to sharing via our various social media platforms (such as the journal's Twitter account [13] and LinkedIn group [14]), and it is interesting to note the very high Altmetric score this article has received (an indication of the online attention it has received) [15]. Of course, many things can lead to increased

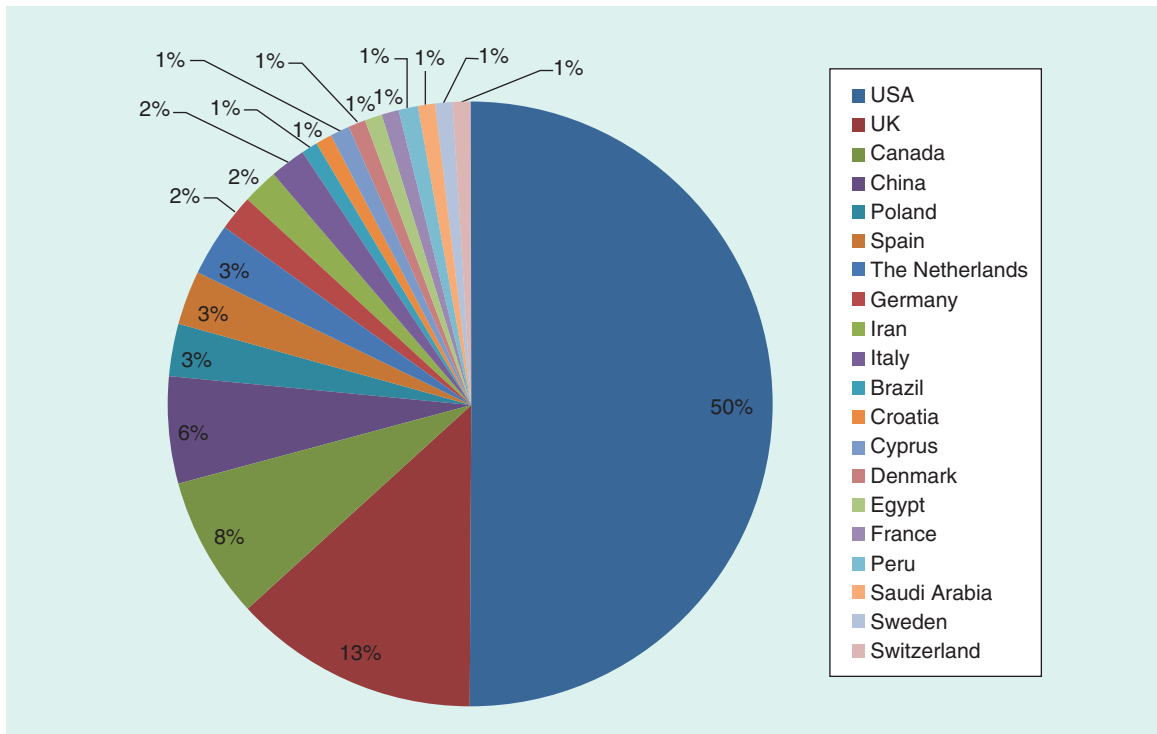


Figure 1. Author demographics for the *Journal of Comparative Effectiveness Research* in 2018.

online attention, but it certainly seems in this case that the video abstract has been a positive addition. Video abstracts feature alongside an article online, and also on the Future Science Group YouTube channel [16]. I am keen to encourage more such content in 2019 following Dr Zigler's example, so watch this space!

Rheumatology once again proved a popular topic in 2018, and the next article is an original research paper examining treatment patterns among patients with active ankylosing spondylitis treated with a TNF inhibitor [17].

While original research results and methods form the core of our content, it is also important to put information in context, and hear the opinions of experts in the field. In his January editorial, Skip Olson discusses the development of an integrated strategy for evidence generation, bringing together both randomized clinical trial and real-world evidence-based approaches [18]; a perspective article in issue 6 discusses learning healthcare systems, and their transition to learning healthcare communities [19]; and finally, a narrative review article from Waycaster and colleagues discusses recent clinical effectiveness, cost-effectiveness and safety research for the treatment of chronic dermal ulcers with clostridial collagenase ointment [20].

Demographics of contributors

As well as looking back over the topics and types of article published in the journal, it is also interesting to consider the source of the content (Figure 1). As usual, the UK and USA make up the greater proportion of our authorship; however, it is interesting to see contributors from some new countries this year, including Cyprus, Brazil and Peru.

Increase in impact factor

The journal's impact factor again rose this year to 1.906 (2017). Our priority remains the timely publication of high-quality research, and it is good to see that this is also being reflected in broader recognition and citation of JCER content in other scholarly works.

Editorial leadership

Sadly 2018 saw JCER's founding co-Senior Editors, Sheldon Greenfield and Eugene Rich, stepping down from their roles. Dr Greenfield and Dr Rich have been hugely supportive during the journal's founding years, and I look forward to continuing to work with them as members of our Editorial Board. However, I was delighted in

September to welcome our new Senior Editor, Dr David Hickam of the Patient-Centered Outcomes Research Institute [21], and look forward to working with him in 2019 and beyond.

In 2018, we were also pleased to welcome two new members to the Editorial Board: Professor Ivo Abraham, Professor of Pharmacy and Medicine at the University of Arizona (AZ, USA), and Dr Vishvas Garg, Global Rheumatology Lead, Health Economics & Outcomes Research at Abbvie (IL, USA).

Journal frequency increase

As you may remember, 2018 saw the journal increase in frequency to become a monthly publication. Following the success of this move, and the continued increase in interesting, high-quality submissions we are receiving, I am pleased to announce that the journal's frequency will increase to 16 issues per year from 2019.

Conclusion

In conclusion, I would like to thank all our readers, authors and Editorial Board members, who contributed to the journal in 2018. I look forward to working with you all again in the coming year, and of course would welcome any feedback or article proposals you might have.

Financial & competing interests disclosure

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References

1. Ling DI, Lynd LD, Harrison M, Anis AH, Bansback N. Early cost-effectiveness modelling for better decisions in public research investment of personalized medicine technologies. *J. Comp. Eff. Res.* 8(1), doi:10.2217/cer-2018-0033 (2019).
2. Hsu Y-J, Kosinski AS, Wallace AS *et al.* Using a society database to evaluate a patient safety collaborative: the Cardiovascular Surgical Translational Study. *J. Comp. Eff. Res.* 8(1), doi:10.2217/cer-2018-0051 (2018).
3. Du Y, Zheng Y, Ke X *et al.* Validity and reliability of the Dundee Difficult Times of the Day Scale in Chinese children and adolescents with attention-deficit/hyperactivity disorder. *J. Comp. Eff. Res.* 8(1), doi:10.2217/cer-2018-0091 (2018).
4. Feldman SR, Pelletier CL, Wilson KL *et al.* Real-world US healthcare costs of psoriasis for biologic-naïve patients initiating apremilast or biologics. *J. Comp. Eff. Res.* 8(1), doi:10.2217/cer-2018-0097 (2018).
5. Priyadarshini A, Jaiswar SP, Singh A, Singh S. Comparative outcome of induced labor by intracervical foley catheter with misoprostol versus misoprostol alone. *J. Comp. Eff. Res.* 8(1), doi:10.2217/cer-2018-0077 (2018).
6. Murray B, Hessami SH, Gulyaev D *et al.* Cost-effectiveness of overactive bladder treatments: from the US payer perspective. *J. Comp. Eff. Res.* 8(1), doi:10.2217/cer-2018-0079 (2018).
7. Hampson G, Towse A, Pearson SD, Dreitlein WB, Henshall C. Gene therapy: evidence, value and affordability in the US health care system. *J. Comp. Eff. Res.* 7(1), 15–28 (2018).
8. Caroff SN, Aggarwal A, Yonan C. Treatment of tardive dyskinesia with tetrabenazine or valbenazine: a systematic review. *J. Comp. Eff. Res.* 7(2), 135–148 (2018).
9. Parisi M, Pelletier C, Cherepanov D, Broder MS. Outcomes research examining treatments, quality of life and costs in HER2-negative and triple-negative metastatic breast cancer: a systematic literature review. *J. Comp. Eff. Res.* 7(1), 67–83 (2018).
10. Malla L, Perera-Salazar R, McFadden E, Ogero M, Stepniwska K, English M. Handling missing data in propensity score estimation in comparative effectiveness evaluations: a systematic review. *J. Comp. Eff. Res.* 7(3), 271–279 (2018).
11. Garside J, Healy N, Besson H *et al.* PHEDRA: using real-world data to analyze treatment patterns and ibrutinib effectiveness in hematological malignancies. *J. Comp. Eff. Res.* 7(1), 29–38 (2018).
12. Zigler J, Ferko N, Cameron C, Patel L. Comparison of therapies in lumbar degenerative disc disease: a network meta-analysis of randomized controlled trials. *J. Comp. Eff. Res.* 7(3), 233–246 (2018).
13. Journal of Comparative Effectiveness Research Twitter. <https://twitter.com/@fsgcer>
14. Journal of Comparative Effectiveness Research LinkedIn group. www.linkedin.com/groups/8205347
15. Altmetric. www.altmetric.com/
16. Future Medicine presents comparison of therapies in lumbar degenerative disc disease. www.youtube.com/watch?v=FjOcCXhgtaU
17. Walsh JA, Adejoro O, Chastek B, Park Y. Treatment patterns of biologics in US patients with ankylosing spondylitis: descriptive analyses from a claims database. *J. Comp. Eff. Res.* 7(4), 369–380 (2018).

18. Olson M. Developing an integrated strategy for evidence generation. *J. Comp. Eff. Res.* 7(1), 5–9 (2018).
19. Mullins CD, Wingate LT, Edwards HA, Tofade T, Wutoh A. Transitioning from learning healthcare systems to learning health care communities. *J. Comp. Eff. Res.* 7(6), 603–614 (2018).
20. Waycaster C, Carter MJ, Gilligan AM, Mearns ES, Fife CE, Milne CT. Comparative cost and clinical effectiveness of clostridial collagenase ointment for chronic dermal ulcers. *J. Comp. Eff. Res.* 7(2), 149–165 (2018).
21. Journal of Comparative Effectiveness Research appoints Dr David H Hickam as Senior Editor. www.future-science-group.com/journal

