

Do ICPE Pregnancy Abstracts Make It to Term?

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DISCLOSURES

ERF, DM, LR, MSA, AVM, and SPG are full-time employees of RTI Health Solutions (RTI-HS). RTI-HS conducts work for government, public, and private organizations, including pharmaceutical companies. RTI-HS funded this study. As an RTI-HS employee, SPG has also participated in scientific advisory boards that are funded by pharmaceutical companies.

BACKGROUND

Conference presentations are a valuable means of early dissemination of research findings. However, a complete understanding of the study methods, results, and implications is achieved only with publication of a full article in a scientific journal.

OBJECTIVE

To explore the characteristics and publication outcome (i.e., full article in a scientific journal) of abstracts on pregnancy-related topics presented at International Society for Pharmacoepidemiology (ISPE) annual conferences (ICPE).

METHODS

- Abstracts presented at ICPE in 2014 and 2015 were identified through the conference program and book of abstracts.
 - Workshops and symposia were excluded.
- Publications were identified from PubMed (year of abstract presentation through December 31, 2017).
 - Letters to the editor were excluded.
- Abstract characteristics (first author's affiliation, countries of authors' affiliations, type of presentation, methods, results, and conclusions), publication outcome, time of first publication, journal category, and impact factor in the Journal Citation Report were evaluated.
- Kaplan-Meier analysis was used to estimate time to first publication.
- Multivariable logistic regression was used to identify the factors associated with publication.

RESULTS

- Table 1 shows the characteristics of abstracts on pregnancy-related topics presented at ICPE in 2014 and 2015.
 - A total of 119 abstracts were included in the study (28.6% oral, 71.4% poster), 68% with academic affiliation of first author and 30.3% with authors' affiliation from > 1 country (17.6% with interregional author affiliations).
- Table 2 shows the content characteristics of the abstracts.
 - Drug safety (57.1%) and drug utilization (16.0%) were the most frequent study types.
 - Of all abstracts, 85.5% used secondary data, 18.8% used multiple data sources, and 63.9% used analytical methods.
 - The primary focus in 82.4% of abstracts was medications, with nervous system medications being the most frequent focus (30.3%).
 - Outcomes or complications of pregnancy, fetus, or infant, or combinations thereof, were evaluated in 58.8% of abstracts.

Table 1. Characteristics of the Abstracts on Pregnancy-Related Topics Presented at ICPE, 2014-2015

Characteristic	n (N = 119)	%
Year (location) of ICPE		
2014 (Taipei)	38	31.9
2015 (Boston)	81	68.1
Type of presentation		
Oral	34	28.6
Poster	85	71.4
Affiliation of first author		
Academia	81	68.1
Regulatory	5	4.2
Other public institution	18	15.1
Pharmaceutical company	6	5.0
Service provider	9	7.6
Region of first author's affiliation		
North America	66	55.5
Europe	47	39.5
Other ^a	6	5.0
Number of countries from authors' affiliations		
1 country	83	69.7
> 1 country	36	30.3
From 1 region	15	12.6
From 2 or more regions	21	17.6

^a Central/South America, Asia Pacific, and Africa.

Table 2. Characteristics of Content of the Abstracts on Pregnancy-Related Topics Presented at ICPE, 2014-2015

Characteristic	Abstracts (N = 119)	%
Study/content type		
Safety of medications, devices, procedures	68	57.1
Drug utilization	19	16.0
Methods	11	9.2
Validation	5	4.2
Patient perceptions/preferences	3	2.5
Study design	2	1.7
Pilot study	2	1.7
Risk minimization measures evaluation	2	1.7
Other	7	5.9
Source of data^a		
Primary data collection	17	14.5
Secondary data	100	85.5
Multiple sources of data	22	18.8
Use of multivariate/adjusted/inferential analytical methods	76	63.9
Studied medications	98	82.4
Nervous system medications	36	30.3
Anti-infectives	9	7.6
Antidiabetics	8	6.7
Antihypertensives	5	4.2
Multiple medications	12	10.1
Other therapeutic disease area	28	23.5
Primary study outcome		
Pregnancy, fetus, infant primary study outcomes	70	58.8
Pregnancy outcome/complications	18	15.1
Major congenital malformations	33	27.7
Neonatal adverse outcomes/complications	19	16.0
Other primary outcomes	49	41.2
Prevalence/discontinuation of use of medications	19	16.0
Specificity, sensitivity, positive predictive value of outcomes definitions/algorithms	4	3.4
Other/miscellaneous	26	21.8

^a Two abstracts, one describing best practices and one presenting a process, were excluded from the denominator.

Table 3. Type of Journals That Published Abstracts on Pregnancy-Related Topics Presented at ICPE, 2014-2015

Journal Citation Report Subject Category, 2015: Journal Name	Journal Articles (N = 65)	%
Medicine, general and internal: <i>BMJ</i> , <i>BMJ Open</i> , <i>CMAJ</i> , <i>JAMA</i> , <i>N Engl J Med</i> , <i>Patient Prefer Adherence</i>	10	15.4
Pharmacology and pharmacy: <i>Aliment Pharmacol Ther</i> , <i>Br J Clin Pharmacol</i> , <i>Pharmacoepidemiol Drug Saf</i>	10	15.4
Obstetrics and gynecology: <i>Am J Obstet Gynecol</i> , <i>BJOG</i> , <i>BMC Pregnancy Childbirth</i> , <i>Contraception</i> , <i>J Obstet Gynaecol</i> , <i>Matern Child Health J</i> , <i>Obstet Gynecol</i>	9	13.8
Public, environmental, and occupational health: <i>Am J Epidemiol</i> , <i>Cad Saude Publica</i> , <i>Epidemiology</i> , <i>Eur J Epidemiol</i> , <i>Int J Epidemiol</i> , <i>Psychiatr Serv</i>	7	10.8
Pediatrics: <i>Pediatrics</i> , <i>Arch Dis Child Fetal Neonatal</i> , <i>JAMA Pediatr</i> , <i>Cardiol Young</i>	4	6.2
Psychiatry: <i>J Clin Psychiatry</i> , <i>JAMA Psychiatry</i> , <i>Schizophr Res</i>	5	7.7
Allergy: <i>Clin Exp Allergy</i> , <i>J Allergy Clin Immunol</i> , <i>J Asthma</i>	4	6.2
Clinical neurology: <i>J Clin Psychopharmacol</i> , <i>Neurology</i>	2	3.1
Medicine, research and experimental: <i>Vaccine</i>	2	3.1
Rheumatology: <i>J Rheumatol</i> , <i>Scand J Rheumatol</i>	2	3.1
Toxicology: <i>Birth Defects Res A Clin Mol Teratol</i>	2	3.1
Computer science, information systems: <i>JMIR Public Health Surveill</i>	1	1.5
Endocrinology and metabolism: <i>Diabetes Metab Res Rev</i>	1	1.5
Infectious disease: <i>AIDS</i>	1	1.5
Multidisciplinary sciences: <i>PLoS One</i>	1	1.5
Peripheral vascular disease: <i>Thromb Res</i>	1	1.5
Substance abuse: <i>Subst Abuse</i>	1	1.5
Unknown category: <i>Malaria World J</i> , <i>Eur J Contracept Reprod Health Care</i>	2	3.1

Table 4. Factors Associated With Publication of Abstracts

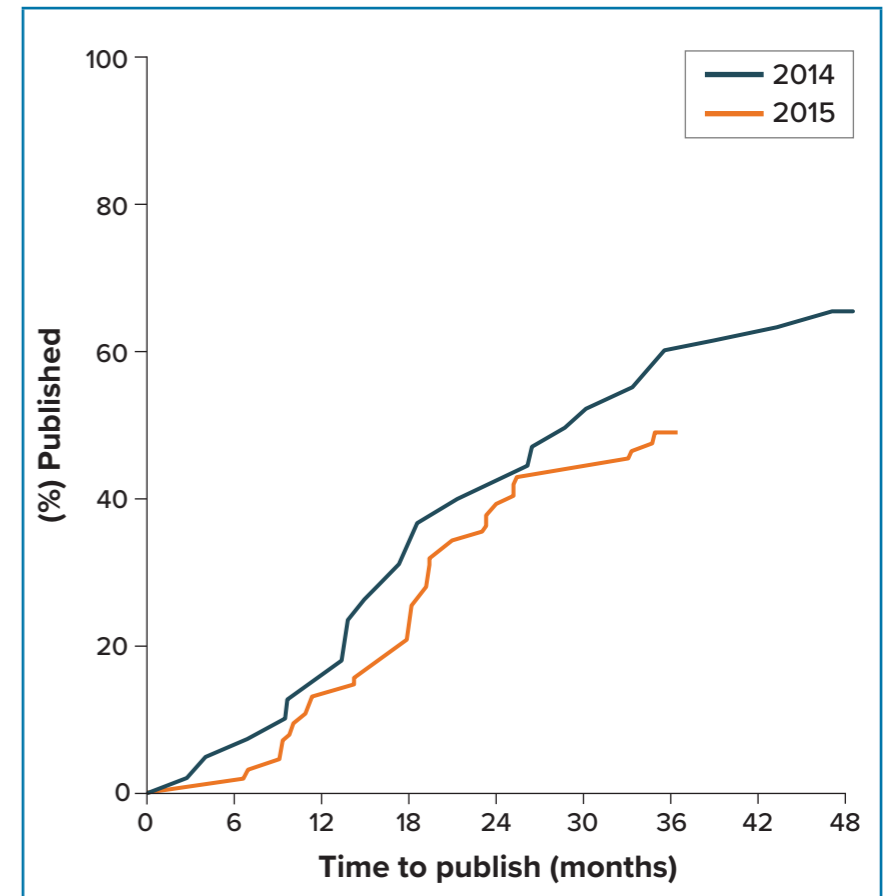
Characteristic	Odds Ratio ^a (95% CI)
Year (location) of ICPE	
2015 (Boston)	1.00 (Reference)
2014 (Taipei)	2.08 (0.87-4.96)
Abstract type	
Poster	1.00 (Reference)
Oral	2.11 (0.86-5.13)
International collaboration (> 1 country)	
No	1.00 (Reference)
Yes	3.00 (1.23-7.30)
Studied medication	
None	1.00 (Reference)
Nervous system medications	1.56 (0.48-5.06)
All other medications	2.90 (0.97-8.61)

^a Adjusted for all other factors.

Table 3 shows the types of journals in which the abstracts were published according to Journal Citation Report subject category, and Figure 1 shows the proportion of abstracts published over time.

- A total of 65 abstracts (54.6%) led to publication during the follow-up period.
- Median time to publication was 1.5 years (95% confidence interval [CI], 1.3-1.7 years).
- The median (25th-75th percentile) journal impact factor was 3.4 (2.6-5.7).

Figure 1. Proportion of Abstracts Published



A strong association with publication was observed for international collaborations (odds ratio = 3.0; 95% CI, 1.2-7.3), and weak associations were observed for type of presentation, medications as a focus of study, and year of abstract presentation (Table 4).

CONCLUSIONS

- More than half of the abstracts on pregnancy-related topics presented at ICPE in 2014 and 2015 resulted in published articles within 3 years. This rate is higher than earlier publication rates reported for abstracts of any category presented at ICPE between 1995 and 1999!
- The factor most strongly associated with publication was international collaboration.

REFERENCES

- Stolk P, Egberts AC, Leufkens HG. Fate of abstracts presented at five International Conferences on Pharmacoepidemiology (ICPE): 1995-1999. *Pharmacoepidemiol Drug Saf*. 2002 Mar;11(2):105-11.

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