Evaluation of WFSA’s Anaesthesia Tutorial of the Week (ATOTW)

SEPTEMBER 2017-JANUARY 2019

ATOTW Team
WFSA
**Introduction**

Since 2005, the WFSA have published over 400 articles across ten anaesthesia specialities in its online, open access educational resource – Anaesthesia Tutorial of the Week (ATOTW). The aim of ATOTW is to support anaesthesia training throughout the world, particularly in areas where access to journals and learning material is limited. Published on a bi-weekly basis, ATOTW tutorials are peer-reviewed, based on the most current literature and translated into four languages. Since 2017, readers can also test their knowledge through online CME quizzes.

Between September 2017 and January 2019, we conducted an online survey to evaluate the utility of ATOTW and received 765 responses from 98 countries. We are delighted to present the survey report to demonstrate ATOTW’s impact and also highlight areas for improvement and expansion of this valuable resource.

**Demographics of respondents**

- **765 responses from 98 countries**
- **Majority of responses from Europe, Sub-Saharan Africa and South Asia**
- **63% of respondents are physician anaesthesia specialists**

The evaluation survey received responses from every region of the world with the majority of respondents from Europe, Sub-Saharan Africa and South Asia. The global reach of the evaluation has enabled us to provide insight into ATOTW’s usability and applicability in different geographical locations.

**Figure 1: Geographical Region of ATOTW Evaluation Survey Respondents**

The majority of respondents were physician anaesthesia specialists or consultants (63%). The remaining respondents were comprised of physician anaesthesia trainees (21%), non-specialist...
physician anaesthetists (6%), nurse anaesthesia providers (5%), non-physician non-nurse anaesthesia providers (1%) and ‘other’ cadres (4%). Most respondents work in university teaching hospitals (40%), tertiary referral hospitals (28%) and private hospitals (19%).

The rest of this report will demonstrate findings based on the 765 responses submitted as part of this evaluation.

1. How is ATOTW found for the first time by its readers?

The majority of ATOTW users stated that they first heard of the educational resource through an online search for anaesthesia topics (36%). The second highest way readers found ATOTW was through friends and colleagues (30%), suggesting that those who access ATOTW value it as a beneficial learning resource which they go on to share with others. 14% of respondents found ATOTW directly from the WFSA website.

Figure 2: How readers first heard about ATOTW (765 responses)

2. When, where and how do readers access ATOTW?

The free, online and open access nature of ATOTW means that articles are easily available when readers have the opportunity to review them or require them to guide their clinical practice. The survey found that most of the respondents’ access ATOTW on either a weekly (45%) or a monthly (37%) basis and 7% even stated that they use the resource daily.

Most respondents access ATOTW in their non-clinical spare time (76%), at work in the operating room during or in-between cases (42%) or on their commute to work (9%) (Figure 3).
As ATOTW is an online resource, it is important to assess whether readers have good access to internet connection to review the tutorials. Of 765 respondents, 326 stated that they always (42%) have access to the internet when required, 298 reported almost always (39%), and 141 (19%) have access less than half the time. (Figure 4).

Figure 4: How often do you have access to the internet when required? (765 responses)

3. Relevance of ATOTW to clinical practice

68% of respondents stated that ATOTW is relevant to their clinical practice 75-100% of the time

Positive feedback included the clinical relevance of ATOTW articles, the up-to-date nature of the content and the good quality of information. 68% of readers found that the ATOTW topics were relevant to their practice 75-100% of the time and 24% found it relevant 50-75% of the time (Figure 5). This demonstrates that the topics are applicable to most users across the geographical spread.

Figure 5: How often are ATOTW topics relevant to practice?
4. Utilisation of ATOTW

ATOTW is utilised by its readers for a range of different purposes, the table below provides an overview of the most popular uses of the resource as based on 765 responses.

<table>
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<tr>
<th>66% for general reading</th>
<th>51% as reference for clinical care</th>
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<tr>
<td>43% for teaching material to others</td>
<td>33% as preparation or studying for an exam/test</td>
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Other uses included as a reference for academic writing and to obtain continued medical education (CME) points.

5. Quality of ATOTW

There were 765 responses to the question which asked respondents which features they liked the most about ATOTW. The three features which readers liked the most were:

| The quality of the content (47%) | Concise, clear and easy to read articles (31%) | Ability to test knowledge and gain CME points (11%) |

Common themes of positive feedback included the quiz component (87), the clinical relevance of the articles (64) and the up to date nature of the content (40). One participant stated:

“I like to take the quiz before starting [the] session, [then] we can estimate how much we have improved after reading that topic”.

On average, respondents rated the overall usefulness and quality of ATOTW as 4 out of 5.

On a scale of 1-5 how do you rate the overall quality of ATOTW? (0 very poor quality, 5 very good quality) 4

On a scale of 1-5 how do you rate the overall usefulness of ATOTW to you as an anaesthesia provider? (0 not useful, 5 very useful) 4
6. Suggestions for improving ATOTW

Most respondents to the ATOTW evaluation reported having no issues in accessing the ATOTW resource. However, there were 241 users who had experienced some problems. The table below provides an overview of the problems reported by users.

<table>
<thead>
<tr>
<th>Problem Description</th>
<th>Number of Users</th>
</tr>
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<tbody>
<tr>
<td>123 users had difficulty searching for the topics they wanted</td>
<td>123</td>
</tr>
<tr>
<td>60 users had trouble opening the ATOTW file</td>
<td>60</td>
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<tr>
<td>48 users reported slow downloads</td>
<td>48</td>
</tr>
<tr>
<td>30 users were unhappy with ATOTW login</td>
<td>30</td>
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<tr>
<td>29 users experienced a language barrier</td>
<td>29</td>
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Two further questions were asked to determine any improvements or new features which could be made to ATOTW. The next sections provide an overview of responses to these questions.

What features would you like to see on ATOTW that don’t currently exist?

38% stated that they did not have any suggestions for additional features (Figure 6). The remaining answers have been categorised into themes. The three most common requests from the remaining responses were:

1. Ability to request topics/content (28%)
2. Development of a mobile application (9%)
3. Changes to the formatting of current resources (6%)

Figure 6: What features would you like to see on ATOTW that don’t currently exist?
Feedback on the ability to request topics/content was given by 210 respondents. Of these the most common request was for a specific article or subject topic (89). These included requests for articles on pain management, regional anaesthesia and articles specifically aimed at anaesthesia provision in LMICs. Other feedback included for more clinical cases to be included (26), more use of clinical guidelines (7) and to have more regular articles (11).

Mobile application
9% of respondents requested for development of an ATOTW mobile application. One way in which the ATOTW team hope to improve access to the resource is through an ATOTW App. Out of 384 readers who responded on whether an ATOTW App would be useful, 296 (77%) thought it would be useful, 23 (6%) did not think it would be useful and 65 (17%) were not sure.

Formatting/ Media
Formatting changes were recommended by 46 clinicians. The vast majority of these requests were for more colour and illustrations. Others also requested multimedia resources e.g. VDO

Access
Other common requests included improved access to the tutorials. The most common of these (10) was to improve access through more regular translation of the tutorials into different languages, notably French and Spanish; and to remove the login requirement.

CME/MCQ
A number of respondents requested more opportunities to test their knowledge with more multiple choice questions.

User interface/ usability
36 respondents suggested changes to the user interface of the website with the most common of these being an improved search function on the WFSA website. One reader wrote:

"Better search function in the virtual library. I am unable to look for topics via keyword search even when I can access it on google."

7. Access to Continued Medical Education (CME)/Continued Professional Development (CPD)

<table>
<thead>
<tr>
<th>TIME CONSTRAINTS</th>
<th>LACK OF OPPORTUNITY OR RESOURCES</th>
<th>NO IN-COUNTRY ACCREDITING BODY</th>
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<tr>
<td>![Clock Icon]</td>
<td>![Wrench Cross Icon]</td>
<td>![Checkmark Icon]</td>
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Engaging in continued medical education activities are important to maintain, develop and improve physician’s knowledge, skills and professional performance. In the ATOTW survey, we asked respondents about their access to CME/CPD activities as well as the type of opportunities that are available to them.

Of 765 responses, 82% (624) stated that they had adequate opportunities to undertake formally accredited CME or CPD activities (Figure 7).

Figure 7: Do you feel you have adequate opportunities to undertake formally accredited Continuing Medical Education (CME) or Continuing Professional Development (CPD) activities? (765 responses)

Of the remaining 18% (141), the most common reason for not accessing CME/CPD opportunities was a lack of time (29%) particularly due to clinical responsibilities. Responses included:

“Busy OR’s, typical day is 14hrs +/- 2hrs plus call. Complex cases require my attention.”

“Despite having a good number [of] anaesthetic physicians at the hospital, the amount of clinical responsibility placed on trainees is huge. Therefore when opportunity arises it’s either the person supervising you won’t allow you to attend or you are running the list by yourself and you cannot attend.”

“My facility won’t provide me with the spare time.”

“Work hours don’t permit much free time.”

“We are almost always overwhelmed by services rather than academics.”

The next most common reasons were the lack of opportunity or resources to undertake CME/CPD activities (23%), no accredited body to award credits or no recommendation from their workplace to gain CME/CPD points (18%) and the unaffordable cost of attending CME/CPD opportunities (11%).
Figure 8 provides a full overview of the responses from those who stated they do not have adequate access to CME/CPD opportunities.

Figure 8: Reasons for not having adequate access to CME/CPD opportunities (141 responses)

The survey also asked respondents to state how many CME/CPD activities they have attended in the past year. Of the 765 responses, 16% (122) did not undertake any form of CME activity.

Figure 9: How many accredited CME/CPD activities did you complete in the last year? (765 responses)

Of all CME/CPD opportunities, the top four which were most accessed by respondents were:

<table>
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<tr>
<th>Courses and Workshops (26%)</th>
<th>Local meetings and seminars (21%)</th>
<th>National Conferences (19%)</th>
<th>Online free material (18%)</th>
</tr>
</thead>
</table>

Figure 10 provides an overview of all responses to the main CME/CPD opportunities which respondents have access to.
8. Next steps
In response to the survey results, the WFSA have begun the process of improving various aspects of this resource and re-designing the ATOTW website. Below are some key features which have been prioritised as part of this re-design:

1. Develop a responsive and mobile-friendly web design so ATOTW can be effectively utilized across any device (laptop, tablet, smartphone)
2. Low-bandwidth optimisation for download in areas with limited internet connectivity
3. Improve the search function so topics are easily accessible
4. Continue to engage national societies through the WFSA membership network to promote ATOTW as an official source of CME
5. Improve the log-in function (currently temporarily removed)
6. Commission more authors from low resource settings
7. Increase the consistency of current language translations and the number of language translations

Conclusion
ATOTW is a high quality, relevant and practical education resource which has wide applications in both clinical and teaching settings. It is widely utilised by our readers across the globe on a regular basis. It is our aim to continue to improve its accessibility to all anaesthesia providers especially in under-resourced areas where opportunity to gain CME is lacking and to maintain the relevance and excellent standard of our tutorials.

Acknowledgements
We are immensely grateful to our team of dedicated editors for lending their expertise and for putting in an enormous amount of effort and volunteer time to make this invaluable project a success. We would also like to take the opportunity to express our deep gratitude to our team of

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**Figure 10: Main sources of CME/CPD (765 responses)**

![Pie chart showing the main sources of CME/CPD](chart.png)
translators who have enabled ATOTW to achieve greater reach and to the WFSA’s secretariat for their administrative support.

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