Is media search a reliable source when investigating the incidence of sports-related out-of-hospital cardiac arrest?

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Background

Media records are a common source when reporting incidence of sports-related out-of-hospital cardiac arrest (OHCA). The incidence of OHCA increases with age, and OHCA in older age groups might be less likely to cause media attention.

Purpose of the study

Assess the incidence of OHCA related to sport in the Norwegian Cardiac Arrest Registry (NorCAR) depending on age, and compare this with media reports.

Materials and methods

Results from a systematic search in the media database Retriever was compared with data from NorCAR for the years 2015 and 2016. We divided the population in two age groups: < 40 and ≥ 40. We included OHCA with presumed cardiac aetiology that were classified as sports-related (figure 1) from NorCAR.

- OHCA during or <60 minutes after exercise.
- OR
- OHCA at an area for "sport or recreational activities".

Figure 1. Criteria for classifying OHCA as sports-related in NorCAR.

Figure 2. Sports-related OHCA reported in NorCAR vs. media by age groups.

Results

We identified 4 631 events with presumed cardiac aetiology in NorCAR during the 24 months. 202 (4 %) cases matched at least one criterion for sports-related OHCA; 25 <40 years, and 177 ≥40 years. Media search resulted in 16 cases; eight in each age group (figure 2), 13 of which were identified in NorCAR and 3 that were not (figure 3).

Figure 3. A total of 16 cases of sports-related OHCA were found in media; 13 of these were also identified in NorCAR and 3 were identified in media only.

Conclusion

Compared to the numbers of OHCA reported to be sports-related in NorCAR, a systematic media search highly underreported the incidence of sports-related OHCA, especially in the older age group (≥ 40 years of age).