

basic data set (MBDS) for research into care outcomes for acute coronary syndrome and the possibility of linking MBDS information with data from other disease-specific clinical registries for this condition, such as the DIOCLES (*Descripción de la Cardiopatía Isquémica en el Territorio Español* [Description of Ischemic Heart Disease in the Spanish Territory]) registry.

The authors point out that the main limitation of their study was the percentage of matches between the 2 registries that could not be resolved. According to the authors, the linkage procedure applied in DIOCLES was adversely affected by using the variable of age, rather than date of birth, as well as quality issues related to admission and discharge dates. Quality issues can also arise with coding of the principal diagnosis at discharge in the MBDS. For instance, a study was conducted at the 9 general hospitals in the Health Service of Murcia, using an MBDS for the first half of 2012 and the second half of 2013 based on a principal diagnosis at discharge of ST-segment elevation acute coronary syndrome (STE-ACS) (International Classification of Diseases, ninth revision [ICD-9] code 410.X1, except 410.71). In that study, 29.1% of 898 cases initially coded as STE-ACS were actually found to be inaccurate during a review of the events by expert cardiologists. Ultimately, non-ST-elevation acute coronary syndrome [NSTE-ACS] was diagnosed in 87.7% of the cases excluded and other conditions in the rest.<sup>2</sup>

Because STE-ACS and NSTE-ACS differ in terms of therapeutic approach, mortality, complications, and rehospitalization rates, this quality issue could cause problems when the MBDS database is used to analyze care outcomes in STE-ACS.

Furthermore, this issue may have been recently heightened by the switch from ICD-9 to ICD-10 for clinical data coding. Another study performed in a regional health service concluded that the information it collected in 2017 in an MBDS using ICD-10 codes may be useful for understanding certain general aspects related to health care and service quality, in comparison with previous years. However, it would not be useful for analyzing trends regarding frequency of patient consultations, monitoring of the management of specific medical conditions, or identifying cases for research projects.<sup>3</sup>

Quality issues have always been a problem with MBDS<sup>4</sup> and should be considered when this kind of information system is used in clinical research.

## Validity of the Minimum Basic Data Set for Research Into Outcomes of the Care of Acute Coronary Syndrome. Response

### **Validez del Conjunto Mínimo Básico de Datos para la investigación de resultados en la atención al síndrome coronario agudo. Respuesta**

#### To the Editor,

We appreciate the kind interest shown by Calle-Urra et al. in our article on the validity of the minimum basic data set (MBDS) for research into outcomes in the care of acute coronary syndrome.<sup>1</sup> The authors wished to highlight the problems in the coding quality of the MBDS, which they considered important among the limitations of our study. However, as our objective was to evaluate the concordance between a clinical registry (DIOCLES) and the MBDS, the coding quality was, in our opinion, a study variable whose result should not be viewed as a limitation at all.

The study published on the Murcia Health Service website,<sup>2</sup> which formed the basis for their doubts about the quality of the MBDS had a different objective to ours; it lightly touched on



José Eduardo Calle-Urra,<sup>a,\*</sup> Pedro Parra-Hidalgo,<sup>a</sup> Eduardo Pinar-Bermúdez,<sup>b</sup> and Concepción López-Rojo<sup>a</sup>

<sup>a</sup>Subdirección General de Calidad Asistencial, Seguridad y Evaluación, Servicio Murciano de Salud, Murcia, Spain

<sup>b</sup>Servicio de Cardiología, Hospital Clínico Universitario Virgen de la Arrixaca, El Palmar, Murcia, Spain

\* Corresponding author:

E-mail address: [josee.calle@carm.es](mailto:josee.calle@carm.es) (J.E. Calle-Urra).

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the coding quality, and it did so differentiating the diagnoses of ST-elevation acute myocardial infarction and non-ST-elevation acute myocardial infarction—something which we did not analyze. The Murcia Health Service study used as its study sample 897 registered episodes that took place in 9 hospitals in Murcia over 2 nonconsecutive 6-month periods in 2012 and 2013, and the authors reported that they considered it unnecessary to obtain confidence intervals, meaning that the scope of their method is merely descriptive and therefore does not allow any inference from their results. Nonetheless, although they did not distinguish between non-ST-elevation acute myocardial infarction and unstable angina, it would seem that they found a high degree of concordance in the coding for acute myocardial infarction (a variable that we did include in our study), as they reported discrepancies in only 3.6% of the clinical records reviewed. Regardless, as we reflect on the conclusions of our study, we concur that there would seem to be room for improvement in the coding quality of the MBDS, but we believe that this can only be established using scientific methods subject to peer-review; this should also be the case for assessing the impact of the updated version of the International Classification of Diseases that the MBDS started to use in 2016.

José Luis Bernal,<sup>a,b,\*</sup> José A. Barrabés,<sup>c</sup> Cristina Fernández-Pérez,<sup>b,d</sup> and Francisco Javier Elola<sup>b,e</sup>

<sup>a</sup>Servicio de Control de Gestión, Hospital 12 de Octubre, Madrid, Spain

<sup>b</sup>Fundación Instituto para la Mejora de la Asistencia Sanitaria, Madrid, Spain

<sup>c</sup>Servicio de Cardiología, Hospital Universitario Vall d'Hebron (VHIR), CIBERCV, Universidad Autónoma de Barcelona, Barcelona, Spain

<sup>d</sup>Servicio de Medicina Preventiva, Instituto de Investigación Sanitaria San Carlos, Universidad Complutense de Madrid, Madrid, Spain

<sup>e</sup>Elola Consultores, Madrid, Spain

\* Corresponding author:

E-mail address: [jluis.bernal@movistar.es](mailto:jluis.bernal@movistar.es) (J.L. Bernal).

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