

Pre-analytical mysteries

Biochemia Medica introduces new section: Pre-analytical mysteries

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Among the many things which journal editors need to focus on in order for a journal to become an internationally recognized, is to identify its niche, *i.e.* define topics which would make the journal recognizable (1). Over the years we have tried hard to establish our individuality via careful selection of topics covered by our journal. Quality management of the pre- and post-analytical phase has become our major focus and papers falling in that field have long been among the most downloaded and most cited papers published in *Biochemia Medica*. Besides dealing with quality in laboratory medicine, we have also been dedicated to educate our authors and readers by publishing simple and educational lessons covering various research integrity issues and different topics in biostatistics. The feedback that we are receiving from our audience tells us that the path we chose was right.

To further nurture our educational goals and combine it with a commitment to raise awareness about some of the most challenging issues in the pre- and post-analytical phase of laboratory work, this issue introduces a new section in *Biochemia Medica* entitled: Pre-analytical mysteries. The aim of this section is to provide a platform to disseminate some common pre-analytical problems and how to deal with them in the form of short case reports. We therefore invite laboratory profession-

als to share their pre-analytical challenges encountered in their everyday work with the rest of laboratory community by submitting them in the form of pre-analytical case reports to *Biochemia Medica*. Cases do not necessarily need to be novel but should be aimed at educating laboratory professionals to better understand the various challenges in our work and learn how to better deal with these issues. To keep the format standardized and ensure its true educational component, the authors are kindly requested to use the proposed template (Table 1).

To recruit and manage submissions to Pre-analytical mysteries, we also introduce two new editors: Janne Cadamuro (Salzburg, Austria) and Michael Cornes (Worcester, UK) who are both experts in the pre-analytical phase and quality management and are both distinguished members of the Working group for Pre-analytical phase (WG-PRE) of the European Federation for Clinical Chemistry and Laboratory Medicine (EFLM). On behalf of Journal Editorial Board, we thank them for accepting the invitation to edit this section in the journal and hope for fruitful and long-lasting collaboration.

With this official launch of the section Pre-analytical mysteries, we proudly present first three "mysteries". The first mystery is brought to you by Giuseppe Lippi who describes an intriguing case highlighting the importance of standardizing pa-

TABLE 1. Template for Pre-analytical mysteries submission

<p>General considerations Please ensure that all patient data has been de-identified and that you obtained the necessary approval, if necessary, from an ethics commission or an institutional review board. Do you have any competing interests? Please state at the end of the report.</p>
<p>Title (if possible use the term "Case Report" within the title)</p>
<p>Short title (up to 50 characters)</p>
<p>Authors, Affiliation (see Journal's author instructions)</p>
<p>4–7 Key words (one of them has to be "case report")</p>
<p>Abstract. In about 200 words summarize the following information if relevant: (1) Rationale for this case report, (2) Presentation of patient and respective laboratory analyses, (3) Outcomes, and (4) Main lesson(s) to learn from this case report.</p>
<p>Introduction Briefly summarize the background and context of this case report. (What was the rationale for presenting this case report? What is the added value of their case report? Why is this report important and why it should be published?) De-identified demographic and other relevant patient specific information (age, gender, origin, etc.). Medical history and relevant diagnoses including relevant physical examination findings Indication for laboratory analyses</p>
<p>Laboratory analyses Which sample(s) was collected? (Please provide relevant information from this case report organized as a timeline (table or figure). For templates, see http://www.care-statement.org/downloads). What values (relevant for this case report) were determined?</p>
<p>Other relevant diagnostic evaluations (imaging, surveys, ...)</p>
<p>Considered diagnoses / Interventions / Further investigation (whatever applicable) Types and dosage of intervention (such as pharmacologic, surgical, preventive, self-care) Further inquiry (re-collection of sample, phone calls, intra-laboratory adjustments,) If re-collection/-measurement: Values from repeat measurement (Please provide these values also in the table above.) Please provide relevant information about timing and sequence of events.</p>
<p>What happened? / Solution Solve the preanalytical mystery.</p>
<p>Discussion Discuss the circumstances leading to the described preanalytical case and the rationale for your conclusions such as potential causation. Compare it to current evidence/literature and discuss possibilities/necessities on how to avoid similar cases in future. Finally, what are the main findings of this case report and what are the 'take-away' messages? What lessons can be learned from this case report? Whenever appropriate the patient should share their experience of their care in a narrative published within this case report or accompanying this case report.</p>
<p>What YOU should / can do in your laboratory to prevent such errors. Provide a bullet point list of what the reader can do to prevent errors like the one that you describe in their own laboratories.</p>
<p>Informed consent and (If applicable) ethical approval.</p>
<p>Acknowledgements Declare competing interests Declare funding</p>

tient position before venous blood collection to minimize the risk of spurious results of *in vitro* diagnostic testing (2). Our second case, presented by Michael Cornes highlights a very common pre-an-

alytical problem of sample contamination with EDTA and encourages laboratories to have algorithms in place to systematically identify and deal with contaminated samples (3). The last case in

this series is the case brought to you by Janne Cadamuro who kindly shared with us his recent experience with pre-analytical error leading to obstruction of instrument probes, caused by formation of white particulate matter and fatty droplets floating on the plasma surface of some heparin tubes (4). We hope that you will appreciate this initiative and read these and all our future cases with great interest. We also hope that they will help you understand and better manage various pre- and

post-analytical challenges we face in our everyday work.

With great pleasure we invite all our potential future authors to submit their pre-analytical mysteries to *Biochemia Medica* and help us build a unique educational repository for generations to come.

Potential conflict of interest

None declared.

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