

Reply to Reviewers

Dear Sir or Madam,

We would like to thank you for the comments and suggestions.

Reviewer 00742196

1. It is important for all hospitals to have a system to report promptly a critical lab value to responsible physicians. Specific unique features for pediatrics should be the main content for this article.

We focused and shorten accordingly, but to begin commenting on triage is crucial for understanding the process in Children's Hospitals.

2. As such, I will suggest to change the title to "Promptly reporting of critical laboratory values in pediatrics".

The manuscript title was changed according to the reviewer's suggestion.

3. By using similar system as START, the laboratory tests results may be divided into critical (must know now), urgent (must know), and important (should know). author should have a table to suggest what should be in the each category and then discuss a few examples from each category.

I introduced the table as suggested and I gave some examples. I would prefer to comment in a common text avoiding proposing a list of categories. Since this manuscript is an editorial, the proposed style might be more adequate. However, as for my experience in five countries with somewhat different "critical values", I would not like to impose a list that even in USA may not be acceptable in all states. I rather explain the method and leave the reader at his/her institution to make the list.

I think that author should discuss coombs test for newborn hemolysis as an example as urgent.

I did as the reviewer suggested.

4. After discussing what need to be reported and in which order, author should propose the method of how to report and to whom the critical lab values should report.

I think this part is included in the text I provided.

5. Article may be cut shorter and do not need to elaborate the meaning of a specific lab test.

I shortened the manuscript eliminating the details of each test.

Dr. Sergi's editorial article about the promptly reporting of critical laboratory values in pediatrics is interesting and important. However, I do have a few comments: 1. It is important for all hospitals to have a system to report promptly a critical lab value to responsible physicians. Specific unique features for pediatrics should be the main content for this article. 2. As such, I will suggest to change the title to "Promptly reporting of critical laboratory values in pediatrics". 3. By using similar system as START, the laboratory tests results may be divided into critical (must know now), urgent (must know), and important (should know). author should have a table to suggest what should be in the each category and then discuss a few examples from each category. I think that author should discuss coombs test for newborn hemolysis as an example as urgent. 4. After discussing what need to be reported and in which order, author should propose the method of how to report and to whom the critical lab values should report. 5. Article may be cut shorter and do not need to elaborate the meaning of a specific lab test.

Thank you for your comments and suggestions. We changed the title, we emphasized the START system, and we discussed the Coombs test. As indicated to the first reviewer, I am unable to provide he list. In each hospital, there may be a list, but there is no "one size fits all". My editorial is to prompt the clinical

physicians to liaise with the lab physicians at a regular basis to evaluate and update their list in a dynamic process and in the setting of a comprehensive quality assurance program.

Reviewer 00074323

The author wrote an editorial on critical values in pediatric laboratory, with focus of the importance of communication between the clinician and clinical chemist. The article highlights also the importance of pediatric-oriented laboratories to face with the increasing complexity of pediatric medicine in referral centres. The manuscript is well written and of relevant interest for hospital pediatricians. The author discusses an exemplar list of critical values in pediatrics. I wonder if it can be noteworthy to briefly discuss also the case of ferritin in the context of life threatening lymphohistiocytic reactions. Finally, I would just suggest resuming critical values unique to the pediatric setting in a table.

Thank you for your comments and suggestions. We introduced the value of ferritin. I have been struggling in identifying a list with one size fits all. Some institutions are primary, some secondary, and some tertiary. My editorial is unique in prompting a better liaison between lab physicians and clinician team to create their own tables that fits their institution.

Reviewer 00742009

This is an interesting Editorial that brings the practitioners to a seldom mentioned topic. The importance of setting critical values in laboratory medicine is perhaps widely understood but a discussion about the current process and future challenges would be of more relevance to the readers. 2. How exactly is the pre-analytical process critical? The authors have mentioned a few examples and focused mainly on the disease or pathology. However, I believe the age of the child and the setting from which the laboratory test is initiated also play an important role. A serum bilirubin values over 340 micromol/L is critical (must know now) for a child during the first 2 weeks of life or if the test is initiated from the neonatal unit. For older children, it is less critical (must know). 3. Even for the same unit or even the same patient, the significance of an abnormal value may change over time. The presence of blasts in the peripheral may be critical at the first diagnosis, but its presence will be less critical once the diagnosis of leukemia has been established. 4. The analytical phase is more complicated as it encompasses a whole list of disciplines in pathology. As a reader, however, I would be interested to know how critical values are set. Are they set by the laboratory physician alone or are they set in collaboration with the clinicians? Is it a one-off activity, or is it under review at regular intervals? Or is it a dynamic process and critical values will keep changing pertaining to critical incidents or quality assurance findings? 5. The postanalytical phase is perhaps the most ignored process. Given the complexity of modern hospitals and inter-disciplinary works, how life-saving actions are eventually carried out in a timely manner will actually determine if the critical value system is effective or not. Is there a time limit to be set? What is the optimal way of communicating to the primary physician? 6. Advances in electronics, wireless communication, and personal communicative devices have changed the way we work along with other. As a primary doctor, I can access patients' laboratory data anytime and anywhere. How do such advances improve or challenge the way critical values are presented to the clinicians? And how do laboratory physicians see about the next level of critical values in patient care?

Thank you for your comments and suggestions. We introduced the concept of dynamicity and re-discussed the three phases of the process a little more in detail (pre-, analytical and post-analytical).

Reviewer 02844701

Overall well written

Thank you for your comment!

We hope that the manuscript may be suitable for publication in World Journal of Clinical Pediatrics.

Your sincerely,

Consolato Sergi