



## Pulse oximeters, new places, best signals?

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To the Editor,

I have read with great interest the work of Yena Oh et al., about an alternative location for positioning a pulse oximeter in a different place than the one we normally do (the finger) [1]. Due to peripheral perfusion alterations, hypothermia and others, the finger may not give a clear signal, or sometimes interrupted or not consistent.

In certain populations this problem is even greater: neonates and young children. The same problem also occurs in certain surgeries, the most common being surgery with extracorporeal circulation with hypothermia and very often accompanied by vasoactive drugs. This can also be observed in adult patients who are treated with vasoconstrictors.

There are places in the world where up to two oximeters are used in different places (hand and foot), to be used interchangeably when necessary.

Our group published a letter to the Editor in 1991 in which we described our experience with the use of oximeters in neonates undergoing surgery with extracorporeal circulation [2].

We described the use of a pulse oximeter by placing one of the arms of the device in the mouth and resting it on the inside of the cheek. This technique gave us confidence in this type of surgery (complex, extensive, hypothermia and vasoactive drugs). The technique can also be used with those

disposable oximeters that are used in some places. The pressure that is installed at these sites is very discreet.

The cheek is an area of very intense vascularization, non-terminal and whose perfusion is maintained even in critical situations.

We suggest its use in the indicated patients. In adults it can also be used without problems.

**Data availability** There are no data obtained for this report.

### Declarations

**Conflict of interest** The authors have no conflicts of interest to declare.

### References

1. Yena Oh DK, Kim DKR, Choi JW. Evaluation of pulse oximeter at the nasal septum during general anesthesia: comparison with finger oximeter. *J Anesthesia*. 2024;38:364.
2. Lema G. Oral Pulse oximetry in small children. *Anesth Analg*. 1991;72:414.

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