EVALUATION OF MANAGEMENT OF RESPIRATORY DISTRESS IN NEWBORNS OVER 34 WEEKS OF GESTATIONAL AGE IN HOSPITAL OF ARPAJON

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Background and aims:
Respiratory distress (RD) is one of the principal cause of mortality and morbidity in neonatology. In 2016 new guideline was established by GENIF, based on recommendations of ILCOR 2015. The aim of this study was to evaluate if new protocol was carefully implicated and respected in our neonatology unit.

Method
We made a retrospective study of the data for the period of 01/03/2016 – 01/03/2017 in maternity of type 2A, with annual delivery rate of 1 400 newborns. Only newborns with RD and ≥ 34 weeks of gestation age were included. Newborns with genetic abnormalities or malformations which could cause RD were excluded.

We divided our population into 3 groups by severity of RD (image1).

We analyzed the severity of RD on M15, H2 and H4 of life, the age of intervention by ventilation non invasive (VNI), the time of call for transfer.

Results
In total, 53 cases were studied, 46 of early-onset, 7 of late-onset RD.

In 87% RD was immediate and nCPAP was started before M15.

More RD was severe before M15 more nCPAP was prolonged.(p=0.14)

Severe RD were transferred all in time (IQR=2.25h).

7 newborns had a late-onset RD and CPAP was started later and it lasted more than 4 hours, 1 newborn was transferred in correct timing according to GENIF.

Conclusion
In 37/46 (70%) of early-onset respiratory distress the management was efficient with total respect of GENIF protocol, while the RD of late-onset, which has in most of time the worst outcome, the rules are almost never respected (1/7).

Image 1. Classification of DR by severity

<table>
<thead>
<tr>
<th>RD</th>
<th>Respiration</th>
<th>SOIWB</th>
<th>SpO2</th>
<th>Silverman score</th>
<th>FiO2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mild</td>
<td>isolated</td>
<td>Moderate without grunt</td>
<td>&lt;92% on room air</td>
<td>&lt;6</td>
<td>21%</td>
</tr>
<tr>
<td>Moderate</td>
<td>Polygoonia</td>
<td>grunt + autre</td>
<td>&lt;92% on room air</td>
<td>4-6</td>
<td>21% à 40%</td>
</tr>
<tr>
<td>Severe</td>
<td>Increased or markedly reduced RR</td>
<td>Persisting grunting</td>
<td>Desaturation, oxygen dependance</td>
<td>&gt;6</td>
<td>&gt;40% + hemodynamis instability</td>
</tr>
</tbody>
</table>

REFERENCES:
2. Edwards, Martin O; Respiratory Distress of the Term Newborn Infant, Paediatric Respiratory Reviews, 14 (2013) 29–37