CONTROLLER MEDICATIONS IN SCHOOLS

Background

The intent or goal of this project is to show that regular use of controller medications can improve lung function in the pediatric asthma population. The pediatric asthma population may not recognize the need for daily control of asthma, whether it's due to lack of knowledge of the disease process or the understanding of controller medications.

Method

The evidence based solution was to administer controller medications in the morning upon arrival at school and then again prior to going home. The controller medication would be given at least 5 days a week. The parents were encouraged to continue the medications on weekends. The evidence is seen in the change in lung function on pre/post spirometry. Spirometry was administered prior to beginning controller medications and was repeated at 4 weeks and 8 weeks.

Results

The outcome of this project showed 50% of the students that participated had a greater than 12% increase in lung functions after taking controller medications 5 days a week. The success was measured through spirometry. After completing spirometry at the beginning of the project, which included giving a SABA to show lung reversibility, the spirometry was repeated at 4 weeks and 8 weeks. Lung function was maintained with administration of controller medications. Controller medications clearly help in controlling asthma.

Conclusion

This project shows the need for compliance with controller medications. It would benefit the patient to take controller medications in a school health based setting. The school nurse plays a vital role in the health of the student by increasing quality of life and decreasing missed school days.
<table>
<thead>
<tr>
<th>Test compared</th>
<th>Student 1</th>
<th>Student 2</th>
<th>Student 3</th>
<th>Student 4</th>
<th>Student 5</th>
<th>Student 6</th>
<th>Student 7</th>
<th>Student 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>pre/post SABA % change FEV1</td>
<td>25.6%</td>
<td>1.9%</td>
<td>22.3%</td>
<td>6.3%</td>
<td>2.4%</td>
<td>31.8%</td>
<td>48.3%</td>
<td>14.4%</td>
</tr>
<tr>
<td>after 8 weeks % change in FEV1</td>
<td>21.1%</td>
<td>-7.9%</td>
<td>24.0%</td>
<td>1.7%</td>
<td>3.3%</td>
<td>43.4%</td>
<td>59.5%</td>
<td>-8.2%</td>
</tr>
<tr>
<td>% change in FEV1/FVC% pre/post study</td>
<td>18%</td>
<td>0%</td>
<td>19%</td>
<td>10%</td>
<td>4%</td>
<td>16%</td>
<td>14%</td>
<td>*5%</td>
</tr>
</tbody>
</table>

### FEV1 Comparison

![FEV1 Comparison Graph](image_url)

- **FEV1 Baseline**
- **FEV1 8 weeks**
ABSTRACT CONTROLLER MEDICATIONS IN SCHOOLS

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Abstract Major Area

X Asthma Diagnosis and/or Care
___ Asthma Education Program or Program Evaluation
___ Device and Technique Evaluation
___ Drug Clinical Trial

Data Abstract with data