Purpose

- To investigate the utility of the ophthalmology consultation service in both outpatient and inpatient settings at a tertiary academic pediatric medical center.

Introduction

- Ophthalmologists are consulted urgently for a wide variety of signs, symptoms, and suspected diagnoses and it is often only after a complete ophthalmic examination that the urgency can be ascertained.
- Unnecessary consultations result in economic cost and productivity loss.

Methods

- Institutional Review Board approval was obtained.
- We conducted a retrospective review of charts of patients who presented to the consultation service between January 1 and December 31, 2014.
- Consults included patients who were either seen in the outpatient clinic, inpatient wards or the emergency department during regular working hours.
- Patients were seen either for ocular complaints or referred from other departments for screening and accordingly were categorized according to the presence (group A) or absence (group B) of an ocular complaint.
- For each consultation, the ophthalmic examination data were abstracted, and a positive exam was defined as any abnormal ocular complaint according to the presence or absence (group A) or absence (group B) of an ocular complaint.
- Patients without ocular complaints (Group B) were categorized according to the presence or absence (group C) of an ocular complaint.
- Patients with ocular complaints (Group A) were categorized according to the presence or absence (group D) of an ocular complaint.
- For each consultation, the ophthalmic examination data were abstracted, and a positive exam was defined as any abnormal finding on clinical examination that correlates with the reason of the consultation.

Results

- Total number of the consults was 955 new consults, 12.5% of them (n=120) required a follow up (2-16 visits).

<table>
<thead>
<tr>
<th>Group</th>
<th>New consults</th>
<th>Follow ups</th>
<th>Identified ocular abnormality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group A (n=619)</td>
<td>619</td>
<td>300</td>
<td>486/619 (79%)</td>
</tr>
<tr>
<td>Group B (n=401)</td>
<td>336</td>
<td>65</td>
<td>88/336 (26%)</td>
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</tbody>
</table>

- Inpatient consults constituted 48.5% of the total number of consults.
- Patients with ocular complaints (Group A) were categorized according to the complaints into red eye/discharge/eye pain, trauma, vision-related, sensorimotor and others.
- Eyelid/orbit lesions followed by trauma sequelae diagnoses were the most common diagnoses made.
- Vision-related complaints were the least ocular complaint found to be associated with ocular abnormalities.
- 19 patients were referred with abnormal red reflex noticed by a primary physician or in a photo by the family, 42% (n=8) patients had ocular pathology, 3 cataract, 3 amblyogenic anisometropia, 1 retinoblastoma and 1 anisocoria.
- Patients without ocular complaints (Group B) were categorized according to the medical diagnoses into neurology/neurosurgery, hematology/oncology, infectious diseases, genetics/metabolism and rheumatology groups.

Discussion

An ophthalmic consultation service at a tertiary pediatric medical center can be very busy. The study shows that consultations based on ocular complaints have the highest yield of positive findings. Interestingly, the only exception for that is the patients referred with vision-related complaints. Consultations called without patient ocular complaints have very low yield. When headache is the only presenting symptom, ophthalmic examination in most cases did not show abnormalities. Ocular involvement is unusual in children with candidemia, but such consultations account for a substantial workload.

Conclusion

With the increasing cost of healthcare delivery, these data imply that consultations for ophthalmic examinations should be well planned and specific. More specific consultations will yield positive results that may affect patient care without wasting valuable health-care dollars.

References


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