National Survey of Dermatology Resources at Safety-Net Hospitals

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Background

• Dermatologic disease is the most common health problem found in underserved populations
  • A frequent cause of hospitalization

• Safety-net hospitals provide significant amounts of dermatologic care to this patient population.
  • Significantly progressed dermatologic disease as compared to the general population¹

• Low socioeconomic status, decreased educational status, and lack of access to health care all increase the risk for skin cancer².

A national survey of resources at dermatology clinics in the VA hospital system revealed:

- 80% had part-time dermatologists, with an average of 3.0 part-time dermatologists per facility.
- 38% had a full-time dermatologist on staff, with an average of 2 full-time dermatologists per facility.
- 32% reported that volunteer dermatologists staffed their clinics, with an average of 6 per hospital.
- 12% reported a dermatopathologist on staff.
- 16% reported having a Mohs surgeon.
- 72% of dermatologists thought that dermatology staffing was inadequate for the provision of optimal patient care.
- The type of staff most lacking were physicians followed by clinical support staff.
AIM:

- To assess the resources of outpatient dermatology clinics associated with safety-net hospitals and identify gaps in clinic resources and the involvement of residents in providing care

HYPOTHESIS:

- Specialty services such as Mohs Surgery are not frequently available in-house
- Patients face long wait times for appointments
- Residents serve to significantly increase the number of patients seen and help to reduce wait times
Methods- Study Design

• A cross-sectional survey was conducted to assess the current staffing and resources at outpatient dermatology clinics in safety-net hospitals affiliated with dermatology residency programs in the United States.

• REDCap was utilized for survey design and distribution

• 42-question surveys were sent via e-mail to the chiefs of the outpatient dermatology clinics of 50 safety-net hospitals.
  • Combination of multiple choice and entering numerical values
Survey Content

1. Number of providers including attendings, residents, and midlevel providers
2. Number of staff including medical assistants and nurses
3. Availability of specialists- Moh’s, Dermatopathology, Pediatrics
4. What is the financial source of attending salaries?
5. Total number of clinics and clinic rooms available
6. Services offered- phototherapy, patch testing
7. Are cosmetic services offered?
8. Clinic hours- how many total hours are services available to patients per week
9. How many patients seen per clinic and patients seen per provider
10. No-show rate for patient appointments
11. Average time till next available appointment
12. Average wait time per appointment
13. Patient commute time
14. Is a pharmacy located on the same campus as the dermatology clinic?
15. Is teledermatology used?
16. Interpreter services and use
Methods-Inclusion Criteria

• Definition of Safety-Net Hospital: Based on DSH patient percentage, top decile.

• DSH is disproportionate share hospital- adjustment made for uncompensated care provided by a hospital

\[
\text{DSH Patient Percentage} = \left( \frac{\text{Medicare Supplementary Security Income Days}}{\text{Total Medicare Days}} \right) + \left( \frac{\text{Medicaid, Non-Medicare Days}}{\text{Total Patient Days}} \right)
\]

• Hospitals affiliated with residency programs were identified utilizing AAMC listings

Statistical Analysis

• Frequency and percentages were calculated for categorical variables

• Medians and interquartile ranges were calculated for continuous variables
Results
Hospital Characteristics

• Currently 24/50 safety-net hospitals have responded to the survey
• Location - 100% of responding hospitals were urban
  • 16.7% West
  • 12.5% Midwest
  • 37.5% South
  • 33.3% Northeast
Specialist Services

- Mohs Services: 42% Yes, 58% No, N=21
- Dermatopathology: 92% Yes, 8% No
- Pediatric Dermatology: 92% Yes, 8% No
Staffing

• 55% of safety-net hospitals utilize non-paid attendings to staff the outpatient dermatology clinic

• Mid-level providers were utilized by 50% of hospitals
<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Median</th>
<th>Interquartile Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attending physicians per half day clinic without residents</td>
<td>11</td>
<td>2</td>
<td>1.25 to 2.75</td>
</tr>
<tr>
<td>Patients seen by 1 attending in a half day clinic without residents</td>
<td>8</td>
<td>15</td>
<td>9.7 to 23.75</td>
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<td>N</td>
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<td>Interquartile Range</td>
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</tr>
<tr>
<td>Attending physicians per half day clinic with residents</td>
<td>24</td>
<td>2</td>
<td>1 to 2.25</td>
</tr>
<tr>
<td>Patients seen in a half day clinic with residents</td>
<td>22</td>
<td>22.5</td>
<td>15.25 to 38.75</td>
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<tr>
<td>Number of residents per half day clinic</td>
<td>24</td>
<td>4</td>
<td>3 to 5</td>
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<tr>
<td>Number of patients seen by residents per half day clinic</td>
<td>23</td>
<td>8</td>
<td>7 to 9.5</td>
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<td></td>
<td>N</td>
<td>Median</td>
<td>Interquartile Range</td>
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<tr>
<td>Number of mid-level providers per half day clinic</td>
<td>12</td>
<td>1</td>
<td>0.75 to 1.25</td>
</tr>
<tr>
<td>Number of patients seen by mid-level providers per half day clinic</td>
<td>9</td>
<td>8</td>
<td>6 to 12</td>
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</tbody>
</table>
## Patient Statistics

<table>
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<th></th>
<th>N</th>
<th>Median</th>
<th>Interquartile Range</th>
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</thead>
<tbody>
<tr>
<td>Number of patients scheduled per half day clinic</td>
<td>19</td>
<td>50</td>
<td>35.5 to 62.5</td>
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<tr>
<td>No-show percentage for patient appointments</td>
<td>22</td>
<td>30%</td>
<td>26 to 34.25</td>
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<tr>
<td>Wait time till third next available appointment for new patient</td>
<td>19</td>
<td>60 days</td>
<td>32.5 to 90</td>
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<tr>
<td>Wait time till third next available appointment for follow-up</td>
<td>17</td>
<td>30 days</td>
<td>19 to 60</td>
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</table>
Teledermatology: 27.30% Yes, 68.20% No
Interpreter Services: 95% Yes, 5% No
Electronic Medical Records: 100% Yes, 0% No

N=23
Conclusions

• Residents care for a significant portion of patients at outpatient dermatology clinics at safety-net hospitals.

• The hospitals surveyed had a median of 4 residents per half day clinic.

• Of the hospitals surveyed, almost all provide pediatric dermatology services and dermatopathology services, however most lacked Mohs surgery services.

• Half of the surveyed safety-net hospitals do not utilize mid-level providers.
  • 2014 report from AAD states that 46% of dermatologists hired at least one non-physician clinician for their practice.¹
  • Residents see the same number of patients per half day clinic as a mid-level provider.

¹ https://www.aad.org/dw/monthly/2015/august/what-care-are-non-physician-clinicians-providing
• Approximately 1/3 (30%) of patients do not show to outpatient dermatology clinic appointments
  • Compared to a University Hospital Dermatology Clinic- 17%\(^2\)
  • Similar rate to non-attendance rates amongst patients with state-supported insurance- 26%\(^2\)

• The majority of safety-net hospitals provide phototherapy and patch testing services, while only half offer cosmetic and laser treatments.

• 55% of safety-net hospitals reported having non-paid dermatologists as compared to 32% of Veterans Affairs hospitals\(^1\)

• 95% of safety-net hospitals reported having a dermatopathologist as compared to 12% at Veteran Affairs Hospitals\(^1\)

Areas of Improvement

• 1 in 3 patients do not show to appointments, and this is an area to be improved compared to university hospital clinics

• Wait times for dermatology appointments were 28.8 days in 2013 according to national survey data.¹

• Mean wait-times for a community dermatologist for the next available appointment was 38.2 days for self-pay patients.² The overall mean wait times for Medicaid patients seeking a dermatologist is 50 days.³

• Only 1/4th (26%) of safety-net hospitals have teledermatology services, which can help extend dermatologic care to outlying primary care clinics
  • One study noted 77% of dermatology consults were managed with teledermatology alone.⁴

• Mohs surgeons are available on-site at 40% of safety-net hospitals.
  • Underserved patients have a higher incidence of skin cancers due to increased sun exposure and/or limited access to dermatologic care.⁵

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Thank You