

# Blindness Prevention in the primary care setting

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Alameda County Medical Center is one of the major hospital systems in the Bay Area, with 475 licensed beds on three campuses:

236 at Highland Hospital

- Alameda County's major source of acute and primary care for medically indigent and uninsured patients
- Inpatient Admissions: 11,800 annually  
Emergency Room Visits: 73,000  
Trauma Activations: 2,400  
Highland Ambulatory Care Clinic Visits: 125,000
- Diabetes clinic started 2001, a multidisciplinary approach to diabetes care including physicians, diabetes nurse educators, podiatrists and podiatry students, nutritionists, optometrists and optometry students, volunteers, behavioral health specialist
- Currently 625 active patients
- Patients seen one afternoon per week with classes and group meetings in Spanish and English alternating weeks

- Incorporated diabetic retinal screenings into our clinic November 2006, we have one camera in the diabetes clinic (we have 3 cameras in the Alameda county clinic system)
- At that time our compliance rate with yearly diabetic retinal screenings was 25%
- Due to limited access at our Ophthalmology Clinic, and our patients not being able to afford outside referrals.
- Ophthalmology Clinic is ironically right across the hall from our Diabetes clinic, but for our patients it was miles away

49 yr. old Latin American  
Female, 14 yrs Type II DM,  
Last exam: 8 yrs ago



# Funding

- Initial funding to purchase our camera was through a grant through the Internal Medicine Dept.
- Continuous funding was absorbed into our current eye care program, a contract the hospital has with UC Berkeley to provide eye care within APMC.

# Successes

- We saw compliance with yearly exams increase from 25% to 90%: 440 patients were screened within the last year with the camera, the rest had regular eye exams.
- The telemedicine program was easily implemented into our clinic with minimal effort on the part of the provider
- We are able to train optometry students, volunteers and MA's for photos which is low cost to the clinic
- This program gives us the ability to triage cases and urgently refer advanced cases
- PC providers can communicate directly with eye providers as the report is handed to us at the time of care
- Detect advanced disease before symptoms occur even in newly diagnosed diabetics

# Successes

- 440 out of 625 patients screened through telemedicine (135 had regular eye exams)
- 87 patients referred for sight-threatening conditions
  - 63 referred for sight-threatening diabetic retinopathy
  - 18 referred for glaucoma evaluation
  - 15 referred for mature cataracts
  - 11 referred for other conditions
  - Note that some patients referred for more than one condition.

# Lessons Learned

- Need for better follow-up: At this time there is no way to ensure our patients have been seen and what treatment they received
- Importance of using retinal photos for increasing patient education and involvement

**26 yr. old Type I African-American**

**HbA1C=9.6 4/27/2005**



**26 yr. old Type I African-American**

**HbA1C=6.1 1/24/2007**



# Using technology to increase access to specialty care

- Ophthalmologists are pleased with the program because they are receiving appropriate referrals, so patients identified are given priority appt
- Ability to provide the pt with an appt date before they leave the clinic

# Pitfalls and barriers

- Difficulty with ensuring follow up
- Our ophthalmologists don't actually have time to be involved in our project, they simply take referrals
- Reimbursement- we are not reimbursed for our CMSP patients which are the majority of our patients

# Future Plans

- With our old system our patients could go blind waiting for a routine screening
- We hope to spread the retinal screening to other clinics at Highland and in our ACMC system.
- Next K6 clinic, which is our primary care clinic to include hypertensives and the many diabetics not seen in our diabetes clinic