



Pediatric Eye Disease Investigator Group (PEDIG)

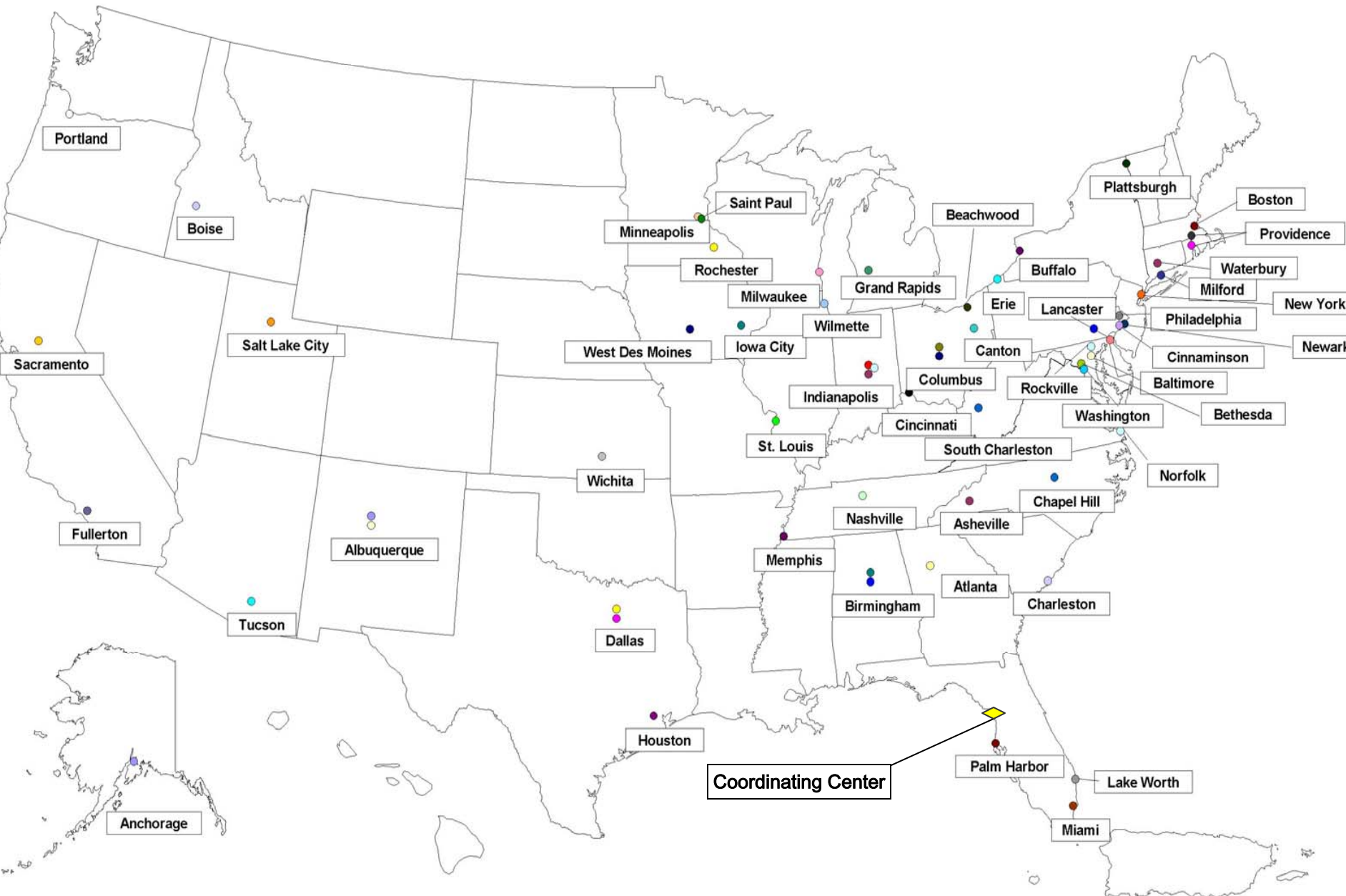
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Pediatric Eye Disease Investigator Group

- Network of community- and university-based providers
- National Eye Institute
- Central Data Coordinating Center
 - Jaeb Center for Health Research
- Data and Safety Monitoring Board

PEDIG Clinical Sites



Pediatric Eye Research – circa 1996

- Randomized trials have been performed in Ophthalmology for 25 years
- Much research in pediatric ophthalmology consisted of anecdotal or retrospective case series
 - Inadequate power
 - Substantial investigator bias
- Dogma was passed on from one generation to the next
- Schools of thought based on site of training

Pediatric Ophthalmology RCT's

- Pleoptics for amblyopia (NIH sponsored 1960'S)
- Era of the large Multicenter Trials (1980's)
 - Expensive
 - Long lead times
 - Usually designed as efficacy
 - Made generalizability suspect
 - Paid full-time coordinators at each site
 - Coordinating center
 - Study chairman's office
 - Answered some important questions (DRS, ETDRS, etc)

Conventional RCTs in Pediatric Ophthalmology

- Prism Adaptation Study (1980s)
 - Recruitment took twice as long as expected
 - Clinical question was not burning
 - How much surgery for acquired non accommodative ET
 - Little excitement with results
 - No apparent change in clinical practice
- CRYO-ROP (1986-2005)
 - Cryotherapy is better than no therapy for ROP
 - Major change in clinical practice

Transitional RCT

- STOP-ROP
 - Supplemental Therapy with Oxygen to Prevent ROP
 - Some centers funded, some not
 - Recruitment took twice the expected time
 - Primary outcome
 - No effect
 - Post-hoc analyses
 - maybe a benefit in a subgroup

Consequences of Few RCTs

- Variability in treatment guidelines
- Evidence basis of clinical practice was primarily your schools of thought
 - Based on training
 - Preferred practice patterns were developed with this level of information
- Certainty of opinion
 - Something never or always works

Mid 1990's

- National Eye Institute Director and NIH Road Map
 - Move to large simple trials
- Community based
- Incorporate research into clinical practice
- Carefully spend research dollars
- “effectiveness” type trials
 - Answer relevant clinical questions
 - Reduce costs

PEDIG - Beginning

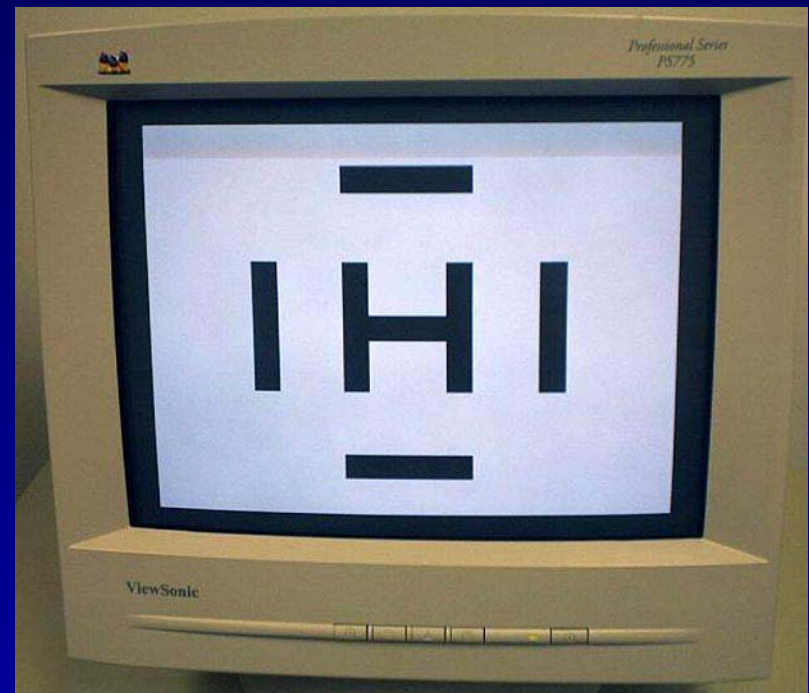
- Application to NEI for single study – 1996
 - Study timing of surgical treatment of congenital esotropia
 - Would become CEOS (Congenital Esotropia Observational Study)
 - Fund creation of a network to undertake the trial
 - Coordinating Center
 - Data
 - Patient retention
 - Large group of investigators
 - Community
 - University
 - Email access required!
- Collaborative project with National Eye Institute

PEDIG

- 1997- NIH Application for a new study and extend the network
 - Amblyopia Treatment Study 1 (ATS1)
 - Atropine versus patching for moderate amblyopia
 - PEDIG Network
 - Bylaws and policies
 - Corporate authorship
 - Officers
- Common clinical problems
 - Investigator interest high
- Investigator concern about research monopoly

ATS1 Issues prior to submission

- Outcome measure
 - ATS Visual Acuity Protocol
 - Developed and pilot tested
- Draft Protocol and Procedures Manual
- Certification planning
 - Phone calls and written examples
 - Later web based simulations
- Quality of life measure had to be developed



Network Issues following review

- Role for optometry
- Appointment of a DSMC

Initial Structure

- Steering committee
 - Meetings
 - Teleconference
 - Study documents and protocol review
- IRB
 - Provide IRB review/coverage for community practices
 - Do as much as possible for university applications – develop templates

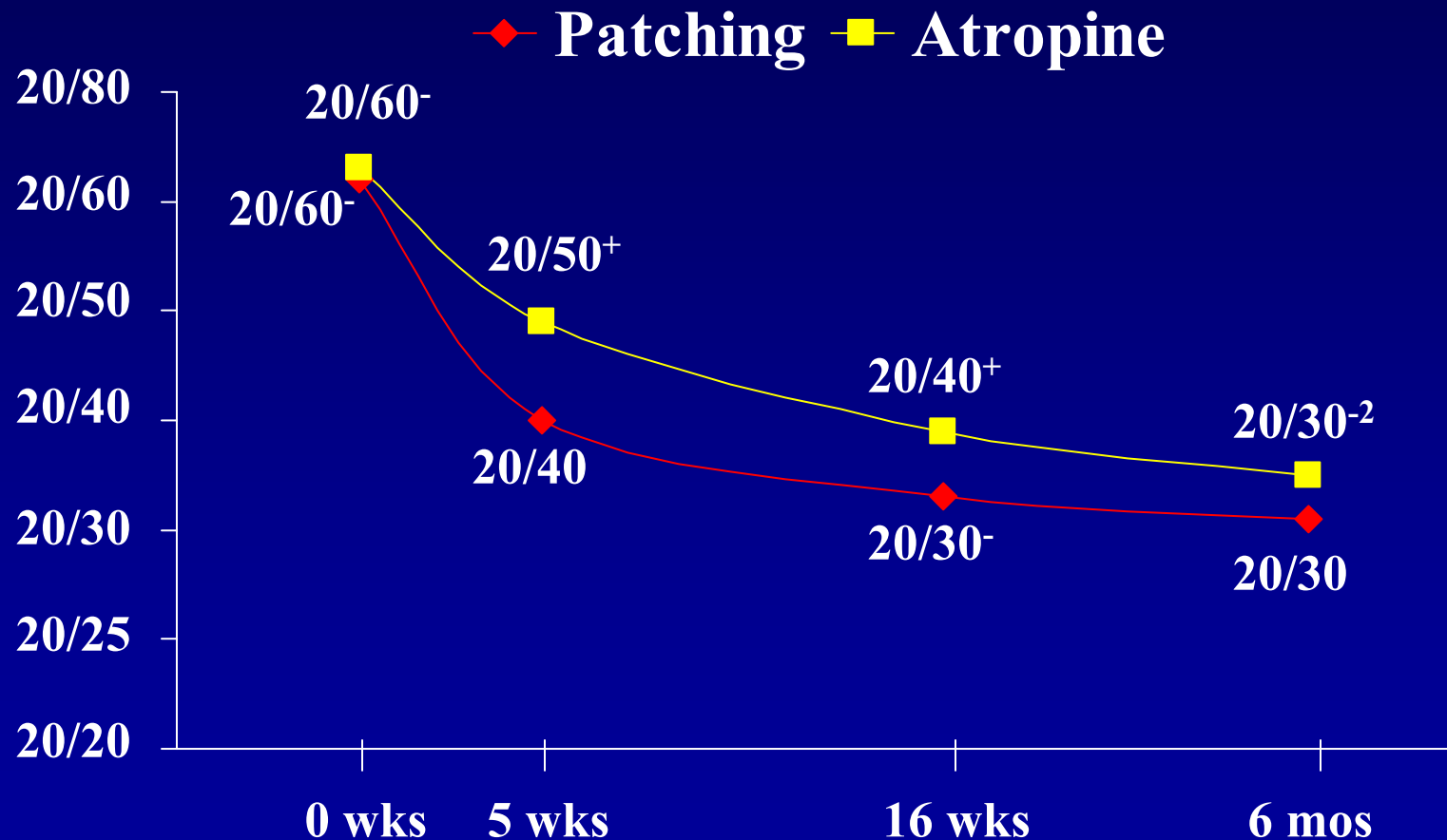
Role of the National Eye Institute

- Collaboration
 - Program manager involved
- Appointment of the DSMC
 - Same body continued for the additional trial
- Appoint external review committees when needed

ATS1 Enrollment and Participation

- 419 patients
- 72 investigators enrolled at least one patient
- Equivalence Trial

ATS1 - Amblyopic Eye Mean Acuity at Each Visit



Beyond ATS1

- Results led to other questions that could be answered with this model
 - Role of patching, role of glasses, role of near activities
 - Impact of age
 - No age effect from 3 to 7, unlike clinical opinion

New Studies Development

- Questions solicited from investigators
 - At national meetings
 - Teleconferences
 - Email discussion
- Ideas from steering committee

Completed Studies

- ATS1 – 2 year outcome
 - Examine recidivism
- ATS 2A, 2B, 2C
 - Look at patching dosage and recurrence risk
- ATS3 pilot study
 - Can we treat older patients
- ATS 3 treatment phase
 - Amblyopia treatment of children 7-18
 - 507 pts, 49 sites (median = 7)
- ATS4
 - Atropine dosage
 - 168 patients, 30 sites (median = 3, range 1-28)
- ATI pilot study
- NLD Questionnaire pilot study



Studies Underway

- ATS1 long term follow-up
- ATS3 observation phase
- ATS5
 - Patching versus a spectacle control
- ATS7
 - Bilateral amblyopia
- ETS1
 - Observational study of preoperative alignment
- ATS6
 - Does near activities really matter
- ATS8
 - Atropine compared to atropine plus a plano lens
- NLD1
 - Observational study of primary surgery
 - Feasible because procedures and framework in place for NLD2
- NLD2
 - RCT for children who failed probing

Studies launching spring 2005

- COMET 2
 - Bifocals for myopia
- COMET 3
- ATS 9
 - Atropine versus patching for older children

PEDIG Organization

- Executive committee
- Study Steering Committees
- Coordinating Center
- Jaeb IRB
- Data Safety Monitoring Committee
 - Twice yearly plus as needed

Executive Committee

- Allocates resources
- Prioritizes projects
- Does grant applications
 - PEDIG is funded, not the particular project
- Approves new sites, sanctions poorly performing sites
- NEI representatives
- Weekly phone calls
- Face to face about once per month

Steering Committees

- Protocol chairmen
- Statistician
- Protocol development person
- Study group clinicians (~2)
- Vision scientist
- PEDIG exec committee represent

Steering committees

- At least monthly conference calls
 - May be weekly during development
- Face to face meetings as needed
- Writing committee or editorial committee

Coordinating Center

- Study operations
 - Statistical, epidemiological, site support, site visits, certification
- IT and Web Department
- Development committee
- Contracts office

IRB – Coordinating Center

- JAEB IRB is separate, private IRB for all our community sites
- Institutional IRBs
 - Templates provided based on local, ever-changing needs
- Review and coordinate content of all university and JAEB IRBs

IRB Issues

- Many novice investigators
- Teaching about equipoise
- Assuring time for consent process in busy practice

Investigator contact

- Web
- Monthly phone calls (3 chances)
- Annual winter meeting (2 days)
 - New studies
 - Protocol certification
 - New data review
 - Unmasking
- Summer 1 day meeting
 - Manuscript unmasking
- Meetings at all relevant national meetings

Coordinator Contacts

- Monthly phone calls
- Weekly patients needing visit logs
- Email
- Same meetings as investigators

Funding

- Per patient capitation for investigator
 - For work beyond standard clinical care
 - Pays for extra study visits, time to do consent and other study procedures including forms
 - IRB capitation for University sites
 - IDC's are added on
- Coordinator payments
 - For each patient completing in-window visits
- Patients/parents
 - Some expense reimbursement funded directly



L I V E - Site

This is the LOG IN for all PEDIG Studies

Enter your Study ID and password

Study ID

Password

Confirm Password

(Passwords are case-sensitive. Sessions will last approximately 1 hour.)

LOG IN

Please note: Regular maintenance is performed on this site every Wednesday from 7:00 - 8:00 AM EST. Access to the site may not be available during that time.

[Password Help](#)

Supported by The National Eye Institute



Web-based studies

- All forms and study documents on the web
- All data entry
- Much of certification
 - Some one-on one contact
- Paper
 - Only study consents
 - Patient information

New Study

- Idea is floated.
- Exec committee approves presentation of a one page abstract at group meeting
- Development committee formed
 - Protocol and MOP created
 - Reviewed by exec committee, investigators, DSMC for interest, science, and feasibility
- Steering Committee formed
 - Contracts and IRB applications

Caution

- Not every project is suitable
 - Complicated protocol
 - Time consuming
 - Large per patient cost