

# MED Cac: NINDS

600 diseases.

Not so easy to prioritize.

Walter J. Koroshetz, M.D.

Deputy Director

# Major research gaps concerning clinical services. Stroke.

- Screening for atherosclerosis.
  - When, how, what action to take to prevent stroke and ischemic heart disease?
- Carotid disease:
  - Do the “real world” results of carotid endarterectomy for asymptomatic patients suggest a net benefit?
  - Stent vs. endarterectomy for carotid revascularization.

# Major research gaps concerning clinical services. Stroke.

- Acute treatment.
  - Appropriate diagnostic evaluation/Rx. for a patient with TIA.
  - Which patients benefit from intra-arterial reperfusion therapy.
  - Benefits of advanced acute stroke imaging
    - Noninvasive angio, perfusion imaging
  - Benefits of decompressive surgery for malignant edema.
- Medical vs. stenting for symptomatic intracranial atherosclerotic disease.
- What constitutes appropriate rehabilitation after stroke?
- Endovascular vs. surgical therapy for berry aneurysms.
- PFO closure in secondary stroke prevention.
- Use of home INR monitoring devices for patients on warfarin.

# Major Research Gaps in clinical services: Head injury.

- Traumatic Brain Injury
  - When to surgically remove blood
  - When to perform decompressive surgery.
    - Subdural hematoma in elderly
    - Ultra-early
    - Ventricular blood (generic case).
  - Optimal emergency and NICU care.
  - Prognostication to inform decisions on continued aggressive care in elderly.

# Major Research Gaps in Clinical Services: Epilepsy

- When to proceed to epilepsy surgery?
- How to predict when a patient no longer needs anticonvulsant therapy?
- How to identify who needs anticonvulsant therapy after a single seizure; after Nsurg.
- Generic vs. brand name anticonvulsants.
- How to detect when “ a spell” is due to seizure.
- Value of long term monitoring.

# Major Research Gaps in Clinical Services. NINDS

Cardiac arrest- is the benefit of total body cooling proven? If so, then how to increase its use. If not, then how to study.

ALS- benefit of early positive pressure ventilation, riluzole?

Parkinsons- benefit of imaging to aid diagnosis?

# Major Research Gaps in Clinical Services. NINDS

- Headache:
  - Appropriate use of Neuroimaging.
  - Dx.and management of medication overuse headache.
- Back pain:
  - Appropriate interpretation of MRI and use of lumbar surgery, epidural steroid injection, rehab, bed rest.
- Cervical disc disease
  - Appropriate interpretation of MRI and use of decompressive surgery.
  - Anterior vs. posterior approach.