Cost-Recovery Charges for Brain Banks

Tom Beach, MD, PhD
Sun Health Research Institute, Sun City, AZ

Why Talk About Cost Recovery?

- Brain banking is expensive, increasingly difficult as funding levels drop
- Continuing uncertainty about when, who, how much to charge
- NIA Biospecimen Best Practice Guidelines offers some help

NIA Biospecimen Best Practice Guidelines

- Original idea was that ADC's would fund brain banks so tissue could be free
- However, Neuropathology Core budgets are finite and tissue requests are not
- Best Practice Guidelines a good place to start but will not be reviewed here except 2 points
- Tissue transactions are not sales, but recovery of costs of tissue banking
- Cost recovery income should be primarily directed toward support of the tissue bank operations

Sun Health Research Institute Brain Donation Program 1987-2007

- Open-Access publication on PubMed (Beach et al)
- 1135 brains since beginning
- Rapid postmortem an emphasis
- Median PMI entire collection 2.8 hours
- More than 200 external users served
- Will offer our experience on cost recovery as an example and starting point for discussion

The Demand is There

- Demand for high quality tisssue is high
- Over past 10 years, increased the postmortem operations budget by 1000%
- From 100K in 1997 to 1 M in 2007
- All self-financed through grants, contracts and tissue transactions

Justify the Charges

- No charge to own Center tissue users
- Charge to external users, but only if NIA ADC budget for that exceeded (this should be a budget line in your application)
- At our center, ADC-funded autopsies are less than 10% of our collection
- Most tissue transactions involve non-ADC-funded tissue

Tiered System

- As recommended by NIA Best Practice Guidelines
- Industry users charged more because they can afford more
- Academic users can afford to pay less
- Very few users actually pay the real cost of collecting, characterizing, maintaining and distributing the tissue

Academic Users

- University, non-profits
- Generally cannot afford to pay true cost
- Especially at pilot stage
- We offer enough tissue for pilot study (eg 2 groups, 6-8 cases per group, 2-3 regions per case) for a standard fee of $2000
- For continuing and extensive support of a project, request a budget line in their grant application

Pilot Project Charge $2000 Justification

- Expense not just for wrapping and mailing
- Neuropathologist – study design, case selection, correspondence, writing MTA, tissue dissection
- Coordinator – database search, inventory adjustment, tissue request recording, correspondence
- Technician – tissue retrieval, dissection, cryostat sectioning, packaging, shipping

Pilot Project Charge $2000 Justification

- Administration – MTA review, record-keeping, payment handling
- Contribution to costs of obtaining the tissue, characterizing the tissue, maintaining the tissue

Industry Users

- Each request negotiated separately
- Supply and demand are market principles, apply here too
- Abundant tissue (cortex) – charge less
- Scarce tissue (hip, SN) – charge more
- Common diagnosis (AD) – charge less
- Less common dx (control) – charge more
- Short PMI – charge more

Industry Users
Typical Charges

- Cerebral cortex frozen 1 g - $500
- Hippocampus frozen ½ gram - $1000
- Cerebellum frozen 1 g - $500
- Striatum frozen ½ gram - $1000
- Entorhinal cortex frozen ½ g > $1000
- Substantia nigra frozen – priceless

Added-Value Products

- Tissue matrix arrays from paraffin blocks
- Extracts of RNA, DNA from clinically and neuropathologically-defined cases
- Protein extracts, unstained Western blots from defined case series
- Accompanying clinical and neuropath data
- Rapid postmortem tissue
- Whole body donation and tissue banking

"They're 'individual' cheese slices, Herb.
We knew one day they would go out on their own."