

Standardised Banff Scoring: A web-based approach

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Conflict of interest

Advisory board, speaker, research grant:
Alexion Pharmaceuticals

Disclaimer

This is about format and dissemination

Not about content of the Banff classification

Current Banff format and dissemination

Regular biannual updates since 1991

Peer-reviewed open access

Informed by evidence

13 updates so far

Example: Banff v

How is Banff v defined:

“mononuclear cell infiltration beneath the arterial endothelium” (Banff 2015)

What is an artery?

“continuous media with two or more smooth muscle layers” (Banff 2003)

What about ah*?

ah*=arteriolitis (Banff 1997)

Need

Central official Banff repository for the currently valid content

Beginner-friendly fashion

Accessible for everyone free of charge

The TNM staging system



Developed between 1943 and 1952 by P. Denoix

Adopted by the UICC and the AJCC

Merged for the 1987 edition

Book plus companion atlas are primary resource

List of all changes between editions provided

Sold as books with a discount for members

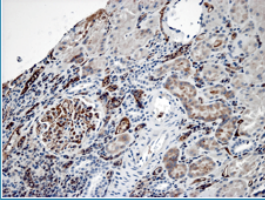
Website with FAQ list

Helpdesk staffed with experts, response time <24 h

Web-based approach

- TPIS Home
- Classification Schema ▾
- Biopsy Templates ▾
- Consult Corner ▾
- Slideshows and Lectures
- Lee: Liver Pathology
- Heart ▾
- Kidney ▾
- Liver ▾
- Lung ▾
- Pancreas ▾
- Small Bowel ▾

TPIS Presentation Case



Our current case is contributed by [Dr. Jennifer Picarsic](#) from the Department of Pathology, Children's Hospital of Pittsburgh.

This 18 year old male renal transplant patient was admitted with fever, elevated creatinine and allograft tenderness. Donor specific antibodies were identified and there was a suspicion of rejection. Urine culture was negative for infection and DMSA scan for chronic pyelonephritis was negative (no cortical scars) on this admission. The Infectious Diseases team was suspecting a "viral pyelonephritis"; BK virus immunohistochemistry was negative.

You may view images from the case [here](#).

TPIS News

- Feb 25 2013: TPIS Drug Effects Searcher added (see below)
- Feb 25 2013: New TPIS Presentation Case added (see above)
- Feb 25 2013: TPIS Liver and Kidney sections updated

[TPIS Team, Privacy and Advertisement Policies](#)

Selected Links

- Liver
 - [Acute Rejection-RAI](#)
 - [Chronic Rejection](#)
 - [Modified HAI](#)
 - [Autoimmune hepatitis](#)
 - [NASH/NAFLD scoring](#)
 - [Liver Tumor Staging](#)
- Kidney
 - [Banff components](#)
 - [Banff scores](#)
 - [EM photos](#)
 - [Creatinine clearance](#)
- Heart (Updated)
 - [Rejection Grading](#)
- Pancreas
 - [Rejection Grading](#)

Goals/Proposal for Banff WG

Collation of all currently valid content from all Banff updates on the Banff website

Diagnosis calculator (based on algorithms) as apps for Android and iOS

Official Banff spreadsheet for research

Personal/institutional/registry accounts as data repository

Collation of currently valid Banff content

Search all Banff updates backwards

Minimal dataset

- Banff scores e.g. Banff v

- Additional diagnostic parameters e.g. “Acute TMA in the absence of any other cause”

Regulatory statutes/definitions

- e.g. “Artery”

Diagnostic algorithms categories 1-6

Only collate, never redefine

Power of definition brings great responsibility

Only faithful reproduction of Banff content

Content decided by Banff process

Only collate, never redefine



Website with definitions for minimal dataset and algorithms

Written form with references

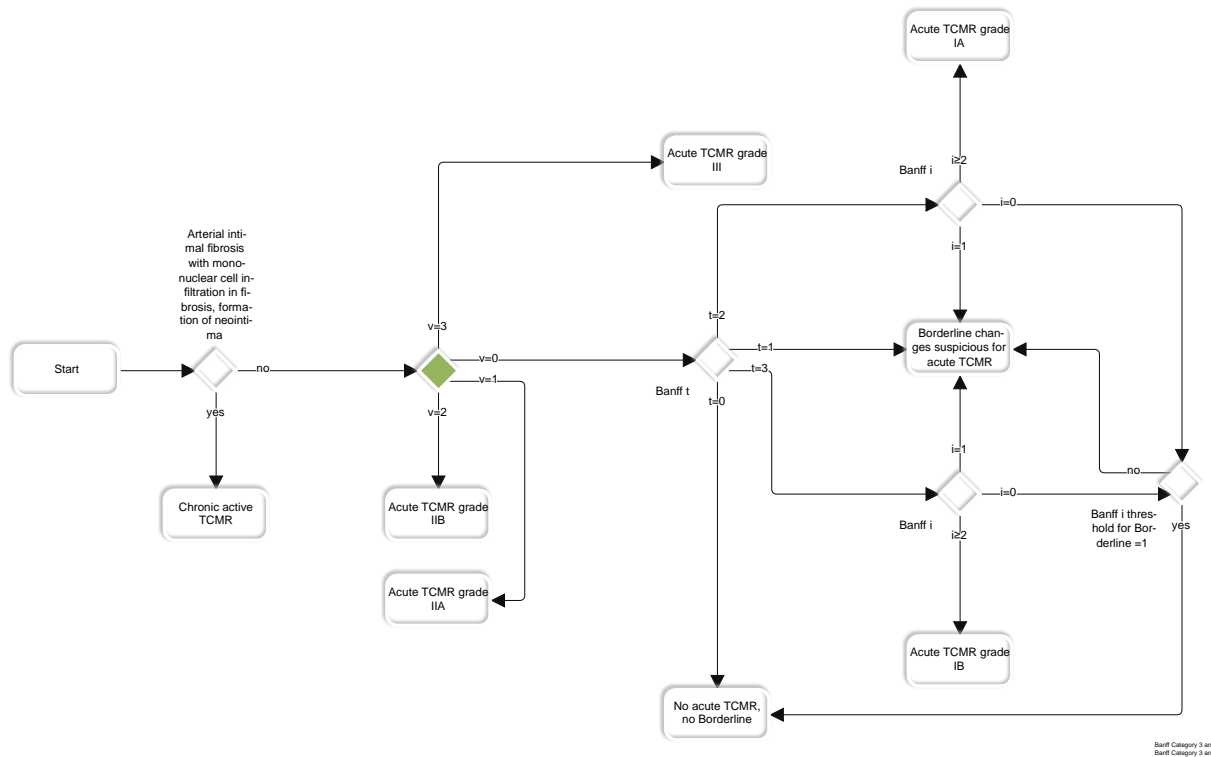
Flow charts

Exemplary micrographs

Training sets

Online diagnostic calculator

Entry of minimal dataset yields diagnostic categories 1-6



Diagnostic calculator app

For iOS and Android

The image shows the word "ios" in a stylized, 3D font. The letters are white with a black-to-white gradient and a shadow underneath, giving them a metallic or glossy appearance. The "i" is lowercase, while "o" and "s" are uppercase.

Official Banff spreadsheet for research

Downloadable spreadsheet template for minimal dataset

Offline entry of data

Upload yields file with automated calculation of diagnostic categories 1-6

Personal/institutional/registry account

Data protection and encryption vital: Password
protected

Pseudonymised cases

Statistics for individual lesions and diagnoses
accessible only to account bearer

Personal access to benchmarking (comparisons to all
peers)

Resources needed

About 1.5 programmer-years

Proper documentation mandatory for low-cost maintenance

Funding required for set-up, maintenance and update under supervision of Banff Foundation

Teamwork

Candice Roufosse, London

Marian Clahsen-van Groningen, Rotterdam

Marion Rabant, Paris

Naomi Simmonds, London

Kammi Henriksen, Chicago

Thank you!