Cellular Therapy Products & NDC vs. ISBT128 Coding/Labeling

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What is ISBT 128?

- Information standard for blood, cells, tissues and organs that provides:
  - Globally unique donation numbering system
  - Standard structures and formats for information
  - International product list, definitions and codes
  - Bar coding for secure information transfer
  - Mechanism for further development and maintenance of the standard
What are NDC and SPL?

» National Drug Code
  » Unique product identifier – 10 digits, 3 segments
    • Labeler code (IDs company that packages drug)
    • Product Code (formulation, strength, dose)
    • Package code (size/type of packaging)

» Naming
  • Proprietary – manufacturer submits marketing name request, reviewed and approved by FDA
  • Non-proprietary – generally assigned by USP
ISBT128 General Format

Standard ISBT 128 label:
(1) Donation Identification Number
(2) ABO/Rh groups
(3) Collection date
(4) Product code
(5) Expiration date and time
(6) Special testing (optional)
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NDC based labelling of Licensed Cellular Therapy Products

Limited Experience

sipuleucel-T
  • PROVENGE

Recipient identifier is human readable only
One licensed cell therapy product using ISBT128 label

Limited/Mixed Experience

» Umbilical cord blood for allogeneic transplantation
  • Moved forward with ISBT standardized naming
    – Exception to normal regulatory requirements
Why might cellular therapeutics not fit well with NDC-SPL?

Pharmaceuticals
- Main ingredient can be synthesized through defined chemical processes or in a defined bio-reactor system.
- Pharmaceuticals completely interchangeable as long as chemistry of final product identical – multiple producers may make same product.
- Products made independent of need and stored.

Cell Therapy Products
- Main “ingredient” can only be obtained from a living or very recently deceased donor.
- Cell therapy product must come from limited donor and be administered to limited recipient.
- May not collect cells / produce final product until need exists.
HPC, cord blood is one of the few cell therapy products that fit this paradigm.
A KEY ELEMENT IS THE PRESENCE OF A DONOR – MORE CLOSELY RELATED TO BLOOD PRODUCTS
Additional Considerations

Important for Labeling System to be Employed

- Tracking / Tracing / Biovigilance
  - As with blood products, cell therapy products are associated with donors.
  - Need to be able to track products in cases where post donation infectious agent discovered

- Product identity
  - Need, for non-autologous products to align donor and recipient qualifiers, e.g. HLA type (also similar to blood products)
  - Product itself must have specified potency indicators, e.g. CD34+ cell content

- Suppression of human error and trans-lingual globalization – i.e. bar codes
  - Product requires multiple elements to be coded, single bar code (such as NDC) likely not sufficient
Proposal

The cell therapies community wishes to engage the FDA (and other regulatory bodies around the world) in a larger conversation regarding naming and labeling paradigms for licensed cell therapy products

» Generate a system for product naming and labeling that fits the unique characteristics and paradigm for manufacturing and distribution of cellular therapy products

» Build sufficient scope into the system to accommodate not only near term transition of products to licensed status (e.g. HPC-Apheresis) but to also products that may be well down the road
  • Inclusive of both autologous and allogeneic products
Proposal

- We believe that ISBT128 forms an excellent foundation for coding / labeling / naming of cell therapy products
  - Already covers virtually all CT products in current use
  - CTCLAG process has input from all major cell therapy related organizations and from FDA
  - Strong international base
What is being adopted NOW

We strongly believe that as we enter the conversation on cell therapies naming and labeling that this, since it already contains elements that are critical to the safe management of these products, should serve as the point of departure.
Critical Issues Moving Forward

- Tracking / Tracing
- Donor-Recipient pairing
- Facilitation of product ordering
  » Some form of standard nomenclature
- Product standards
- Product interchangeability
- Expandability to multiple cell therapy products
- International usability and acceptance
  » Facilitation of product movement across boundaries

- Expandability to related products
  » Tissue engineered products
- Management of sub-optimal donations
- Relationship between licensed and pre-licensure products
- Relationship between 351 and 361 products
  » Almost universally produced in same facility
Current Coding

- Blood
- Cellular Therapy
- Tissues
- Plasma Derivative (ABO specific)
- Human Milk
New Areas of Coding

- Organs
- Regenerative Medicine Products
- Assisted Reproductive Technology
- ?
Number of Registered Facilities

- Number of registered facilities worldwide over time.
Who is Registered to use ISBT 128?

Facilities in 72 Countries are Currently Registered with ICCBBA
• Important – global scope of cellular therapy products (e.g. unrelated donor HPC-A)
ISBT128 & Cell Therapies

ISBT 128 Registered Cellular Therapy Facilities
Status of ISBT 128

- >4,500 facilities have registered to use ISBT 128
- 68 countries on 6 continents have registered facilities
- 546 new facilities in 2012 as of October 31
- >100 vendors of equipment and supplies are licensed to use ISBT 128
- >40 million products are labeled with ISBT 128 each year
Cellular Therapy

12 cellular therapy professional societies from around the world support ISBT 128

» Notably includes FACT, JACIE, ISCT, AABB

Some require the use of ISBT 128 terminology in their Standards

Some require a plan for full implementation of ISBT 128
Moving Forward

Are the two approaches mutually exclusive or can they be reconciled?

» Naming: Standard product name versus Proprietary product name versus Non-proprietary product name (generic name?)

» Bar codes: NDC versus code 128

» Product identity

» Co-Labeling???

More extensive conversation is needed