



Tumor Comparison

NAACCR Death Clearance Manual Update

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Tumor Comparison

- The process of comparing the registry's tumors to the reportable condition coded on the mortality file (Death Certificates - DC)
 - Minimum requirement: Only the Underlying Cause of Death (COD) code
 - May use all conditions, both Underlying and Contributing Cause of Death codes
 - Tumor – Case – Cancer: For Death Clearance these are interchangeable

Benefits

- Identify potential missed cases
 - Hospital Deaths
 - Physician only cases
- Clear up Non-Histologically confirmed cases
- Update Non-Specific primary sites
- While encouraged to do Tumor Comparison - it's only required when standard setting organizations require it

Timing

- Wait until the Mortality file is complete
- Have the majority of the Death year's cases complete
 - Example: 2011 Death Year
 - Late summer 2012 - Final Iowa Mortality file
 - February 2013 - 95% complete for 2011 incident cases
 - Feb-March 2013 – Begin Tumor Comparison edit
 - October 31st, 2013 - Tumor comparison complete – any Death Certificate Only (DCO) cases applied to registry's database

Death Clearance Manual

- NAACCR Death Clearance Manual
 - Published July 2009 for 2010 Deaths
 - Proposed new/updated guidelines
 - Work in progress – [Welcome Feedback](#) 😊
 - Tentative Implementation date: 2014

Death Clearance Manual

- Tumor Comparison Guidelines – Appendix E
 - New section
 - Took parts from Chapter 3 and 4
 - Automated process

Objective


- Go over the proposed updates in Appendix E
 - Determining if the primary tumor in the registry is the same or different than the reportable condition listed on the mortality file
 - Determine if Follow Back (FB) is needed/required

General

- The following guidelines should apply to Death Clearance only
- Less stringent criteria used
- Timing and disease status not factors
 - ❖ Exception: When comparing an Unknown tumor (C809) on the DC with a known tumor on the database – if the time span between time of diagnosis and time of death is over 5 years, review should be done.

Terminology

- Direct Match **AUTOMATED**
 - The first 3-characters of the primary tumor are exactly the same, regardless of laterality on the mortality file
 - C504 vs. C509
 - C341 vs C349
- Mapping Match **AUTOMATED**
 - The primary tumor combination is listed in the mapping table
 - C155 vs C160
 - C189 vs C209
- Manual Reviewed Match
 - The primary tumors are neither a Direct or Mapping match
 - C509 vs C189



Solid Tumor Guidelines

Guideline I

- If the primary site in the registry and the COD on the DC are a **Direct Match** – consider this a match – No FB is required.

Example: Patient had a Breast primary (C50.4) diagnosed in 2000 and died in 2012 with (C50.9) as a COD code.

Mapping Table

Death Certificate Value	Registry's DB Value		Death Certificate Value	Registry's DB Value	
ICD-0 Code	ICD-0 Code				
C155	C160		C189	C171	
C159	C160			C199	
C16	C260			C209	
	C268		C199	C187	
	C269			C189	
C160	C155			C209	
	C159			C26	
C17	C26		C209	C187	
C171	C189			C189	
C18	C26			C199	
C187	C199			C21	
	C209			C26	

Guideline 2

- If the primary site in the registry and the COD on the DC are a **Mapping Match** – consider this a match – no FB is required.

Example: Patient had a Sigmoid primary (C18.7) diagnosed in 2007 and died in 2012 with a Recto-sigmoid primary (C19.9) listed as COD on the DC.

Guideline 1 & 2

Exception

- Exception: Behavior
 - In situ vs. Invasive
 - If the only invasive COD on the DC matches an in situ tumor on the Database (DB) – FB should be done
 - Common sites: Bladder and Cervix
 - Benign vs. Malignant Brain (**Pending**)
 - If a malignant brain on the DC matches a benign brain in the registry – FB should be done

Guideline 3

- There are some Histology-Specific based matches where the sites doesn't match but the Histology's match – consider this a match – no FB is required

Histology Based Mapping			
	ICD-10	Histology Code	ICD-O-3
Mesothelioma	C45	905	All sites
Waldenstrom	C88.0	9761	C420
Kaposi Sarcoma	C46	9140	All sites

Guideline 4

- Hematopoietic and Lymphoid Tumors only
- Convert the ICD-10 COD primary site/histology codes to ICD-O-3 site/histology codes
- 4 main histology categories:
 - Non-Hodgkin Lymphoma
 - Hodgkin Lymphoma
 - Leukemia
 - Myeloproliferative disorders/Myelodysplastic syndromes

Guideline 4

- All Non-Hodgkin Lymphoma codes

- Range 9590-9597
- Range 9670-9759

Example: Patient with Follicular lymphoma (9690/3) and COD lists Non-Hodgkin's Lymphoma, NOS (9590/3) – match – no FB required

- Hodgkin Lymphoma

- Range 9650-9669

Example: Patient with Hodgkin, nodular sclerosis and cellular phase (9664/3) and the COD lists Hodgkin's lymphoma, NOS 9650/3) – match – no FB required

Guideline 4

- Leukemia codes

- Range 9800-9948

- Exception: CLL (9823) vs SLL (9670)

*Example: Patient diagnosed with CLL (9823/3) and the DC lists Leukemia, NOS (9800/3)
– match – No follow back required*

- Myeloproliferative disorders and Myelodysplastic syndromes

- Range 9950-9992

Example: Patient diagnosed with Refractory anemia (9980/3) and the DC states MDS (9989/3) – In range but manual review is needed – DB indicates same primary – no follow back required

Example: Patient diagnosed with Myeloproliferative disease (9975) and the DC lists Myelodysplastic syndrome (9986) – in range but manual review is needed – DB indicates new primary - FB is required

Guideline 5

- Apply to those that don't meet the Direct, Mapping, or Histology matching criteria
- Minimal changes/updates
- Common Metastatic Sites
 - Lung, Liver, Bone, Brain
- When the guideline states “no follow-back required” – the DC can be matched without obtaining further information

Guideline 5

A) When the registry cannot accurately make the determination with available information – FB is required

B) If the primary tumor in the registry and the COD on the DC clearly represent 2 different primaries – FB is required

Example: Patient with colon cancer in registry's DB – DC lists Leukemia as COD

Guideline 5

C) If the primary tumor in the registry is Unknown (C809) and the COD is a Common Metastatic Site – No FB is required

Example: Patient has an Unknown primary (C809) and the DC lists Liver (C220) as the COD. Assume the liver is mets from the unknown primary.

Guideline 5

D) If the primary tumor in the registry is Unknown (C809) and the COD is **NOT** a Common Metastatic Site (and additional information from the registry provides no help) – FB is required

Guideline 5

E) If the primary tumor in the registry is a known primary and the COD is a Common Metastatic Site, consider both to represent the same tumor without FB **ONLY** if the metastatic site is commonly associated with the primary in the registry

Example: Pt with Prostate Ca and the DC states Bone Ca – Match – No FB is required

Example: Pt with Bladder CA and the DC states Brain, C719 – FB is required

Guideline 5

F) If the primary tumor in the registry is a known site and the COD is Unknown (C809) **AND** the time span is over 5 years (and additional information from the registry provides no help) – FB is required

Example: Pt diagnosed in 1995 with Bladder cancer. Pt died in 2012 with the COD of Unknown Ca (C809) – FB is required

Guideline 5

G) If the primary in the registry is not histologically confirmed and there is no mention on the DC of cancer – It's encouraged to FB to determine if the diagnosis was later ruled out

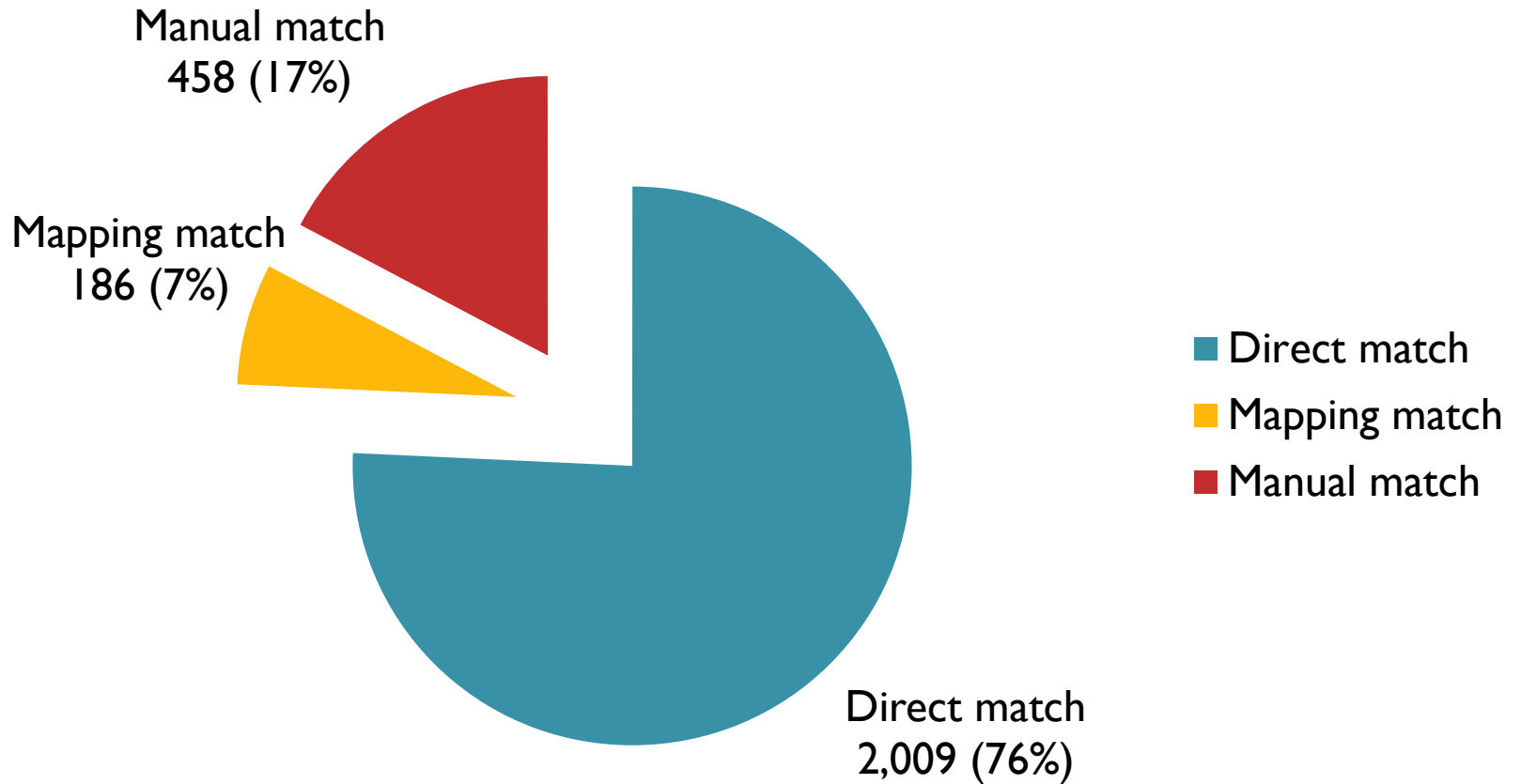
Example: Pt diagnosed with Suspicious Lung Cancer in 2009. DC has COD listed as Pneumonia – After FB it was determined that the suspected mass was later ruled out – Lung cancer removed from registry DB.

2009 Death Clearance Test Study

- 2009 Death Year Used for Tumor Comparison (Site differ edit)
- 2,653 cases in the study
 - Matched at Patient level only
 - Reportable cancer on DC
 - Divided into 3 categories
 - Direct Matches
 - Mapping Matches
 - Manual Matches (not a Direct or Mapping match)

2009 Test Study

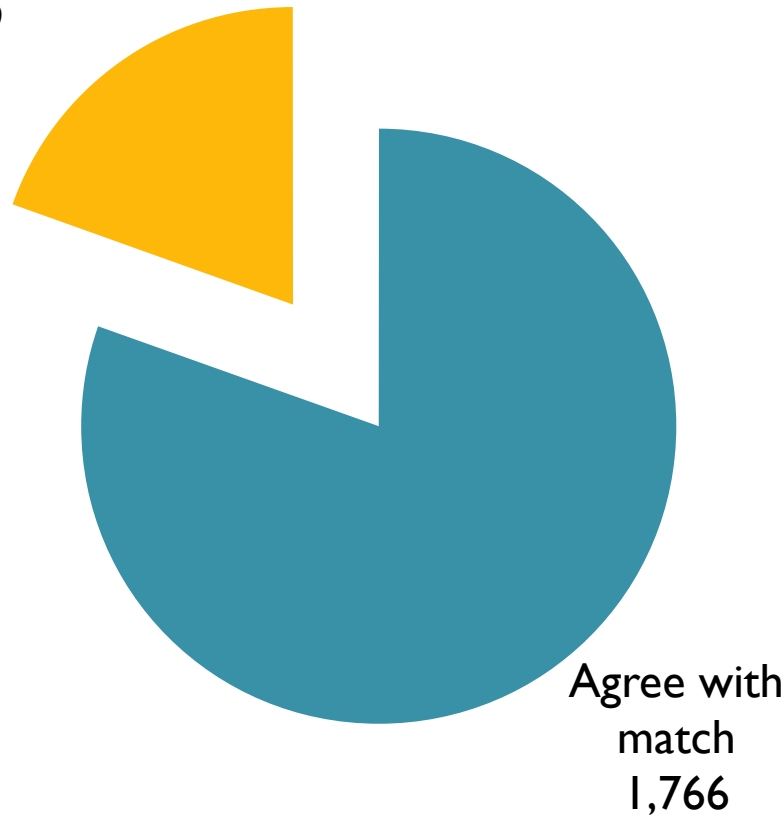
2009 Site Differ Edit



2009 Test Study

Direct & Mapping Matches

Needs review
429



■ Agree with match
■ Needs review

2009 Test Study

- Direct and mapping cases reviewed – 429
 - Matched after reviewed – 365 (85%)
 - Follow-back needed – 64 (15%)
- Follow-back cases done – 64
 - New case – 8 (12%)
 - No new case – 56 (88%)
- Total Direct and Mapping cases – 2,195
 - **New cases – 8 (0.36%)**
 - No new case – 2,187 (99.64%)
- Manual Reviewed cases – 458
 - **New case – 103 (22.5%)**
 - No new case – 355 (77.5%)

Conclusion

- Tumor Comparison is less labor intensive
- New guidelines allow for automation
- With automation potentially missed cases are very minimal

Questions!



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