**Virginia Cancer Registry Cancer Cluster Investigation Procedure**

Date: Oct. 2018

Step 1: Getting information. The purpose of this step is to gather the information needed to determine whether or not there is a potential cancer cluster. Collected information may include:

* The type(s) of cancer
* The number of reports of cancer
* Demographic information of individuals with cancer (e.g. age, race/ethnicity, and gender)
* Geographic area of concern
* Time period of concern
* Suspected environmental exposure(s) (if applicable)

Step 2: Evaluation information and determine if it is a potential cancer cluster. To qualify a potential cancer cluster, it has to meet three of these conditions:

1. Be unusually high in number
   * The observed number of cases is higher than expected among individuals in a similar setting
2. Be of a specific body site
   * All of the reported cancer cases must include the same type(s) of cancer
3. Occur close together with respect to space and time
   * The cases included in the cluster occur over the same period of time and within the same geographical area

Step 3: If it is a potential cancer cluster, then analyze data and contact the requester for more information if necessary.

* During this step, we use data analysis to determine if the number of cases is statistically higher than expected for this population.
* If it is found that there is a statistically significantly higher occurrence of cancer than expected, we will then further investigate if there is a specific environmental exposure that could be the cause of these cases.

Step 4: Draft the investigation report to the requester with our conclusion meanwhile notify the State Toxicologist and environmental epidemiologist.

* After the completion of the investigation, we will send an investigation report summarizing our findings and send it to the requester.
* If we find there to be a cancer cluster, we will contact the state toxicologist and environmental epidemiologist to conduct a further investigation.
* Virginia State Public Health Toxicologist: Dwight Flammia, PhD
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* Director, Division of Environmental Epidemiology: Caroline Holsinger, DrPH, CPH
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**Cancer Cluster Response Flowchart**

**Virginia Department of Health**

**Virginia Cancer Registry**

Receiving Request

Refer to State Toxicologist and Environmental Epidemiologist

Create a Final Written Report

Contact Requester for Information and Analyze Data

YES

Evaluate the Request

End Investigation

Is it a potential cancer cluster?

NO

Send Customized Letter & Information to Requester; Refer to Appropriate Departments

| **Cancer Cluster Report**  **Virginia cANCER rEGISTRY**  109 Governor Street 10TH Floor, Richmond, Virginia 23219  804 867 7870 (fax)  Taylor.guidry@vdh.virginia.gov | | | | | | | |
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| **Please fill out all fields on the form** | | | | | | | |
| **Name** | | | **Date:** | | | | |
| **Position and Affiliation**: | | | | | | | |
| **Address:** | | **City:** | | | **State:** | | **ZIP Code:** |
| **Telephone:** | **Email address:** | | | **Fax:** | | **FTP Address (if available)** | |
| **Cance cluster summary** | | | | | | | |
| **Please summarize the cancer cluster incidence:** | | | | | | | |
| **Case characterization and verification** | | | | | | | |
| **Please provide case information as much as possible:**  Case 1:  - Patient Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - Cancer type (site)­­­­­­­­­­­­­­­­­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  - Date or year of diagnosis\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - Sex\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  - Age at diagnosis or year born\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - Occupational history\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  - Address of residency at diagnosis and residential history\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Case 2:  - Patient Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - Cancer type (site)­­­­­­­­­­­­­­­­­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  - Date or year of diagnosis\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - Sex\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  - Age at diagnosis or year born\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - Occupational history\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  - Address of residency at diagnosis and residential history\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Case 3:  - Patient Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - Cancer type (site)­­­­­­­­­­­­­­­­­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  - Date or year of diagnosis\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - Sex\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  - Age at diagnosis or year born\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - Occupational history\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  - Address of residency at diagnosis and residential history\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Case 4:  - Patient Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - Cancer type (site)­­­­­­­­­­­­­­­­­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  - Date or year of diagnosis\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - Sex\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  - Age at diagnosis or year born\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - Occupational history\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  - Address of residency at diagnosis and residential history\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Case 5:  - Patient Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - Cancer type (site)­­­­­­­­­­­­­­­­­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  - Date or year of diagnosis\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - Sex\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  - Age at diagnosis or year born\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - Occupational history\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  - Address of residency at diagnosis and residential history\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  **Please provide extra cases in above format in a separate page.** | | | | | | | |

All requests are subject to approval by the Division of Policy and Evaluation and may under certain circumstances require approval from the Institutional Review Board of the Virginia Department of Health. All requests are handled on a “first come, first served” basis as time and staffing permit. Resulting data will be transmitted in a manner consistent with the Health Insurance Portability and Accountability Act (HIPAA). Data analysis is limited to the accuracy of the data submitted to the Virginia Cancer Registry.