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Comprehensive  
Cancer  
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# A FHIR®-based Approach to Chemotherapy Order Templates

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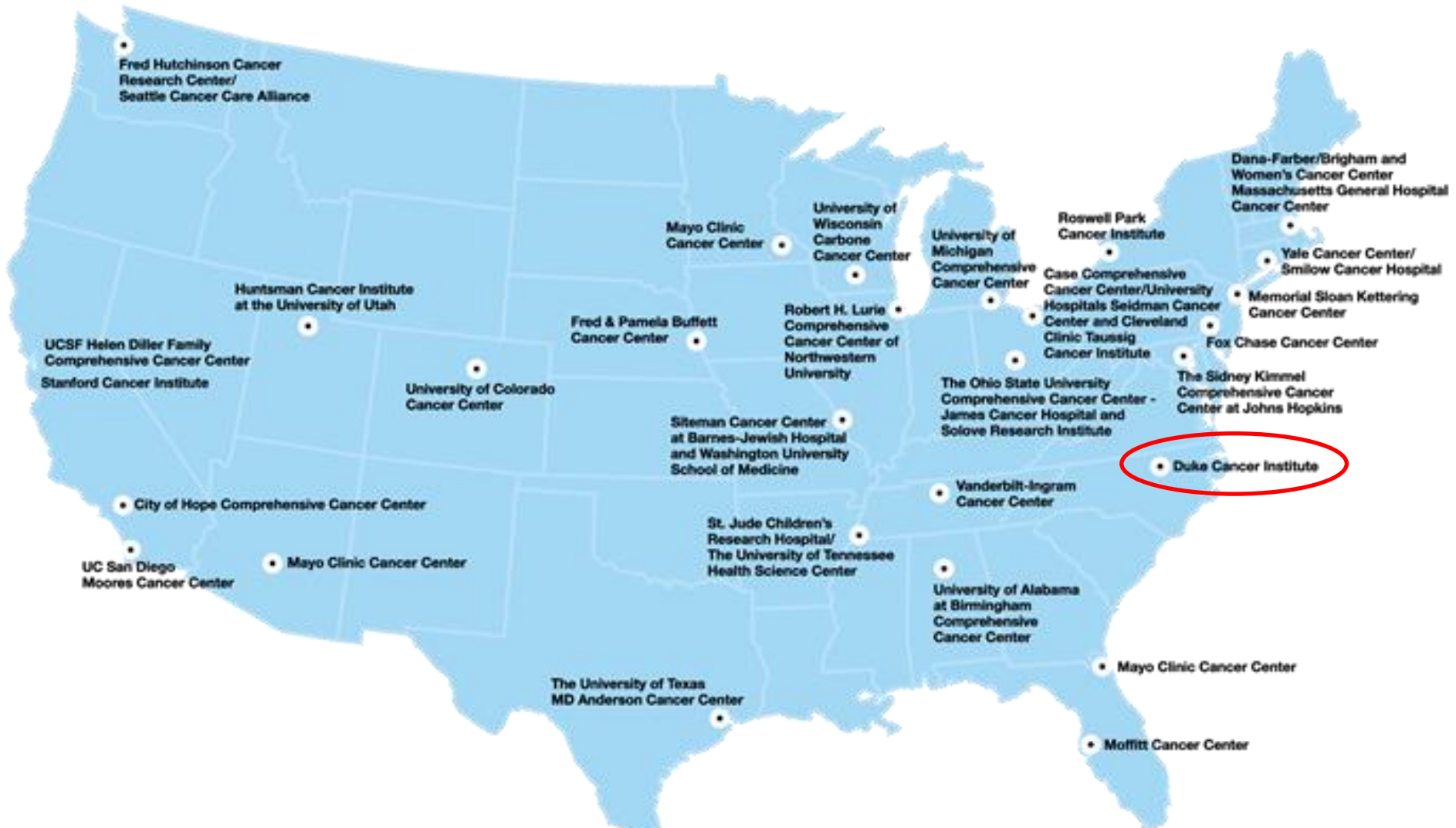
Medical Informaticist  
National Comprehensive Cancer Network  
Fort Washington, PA

March 2017



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# NCCN Member Institutions





## Who We Are

- A not-for-profit alliance of 27 leading cancer centers devoted to patient care, research, and education

## Why We Exist (Our Mission)

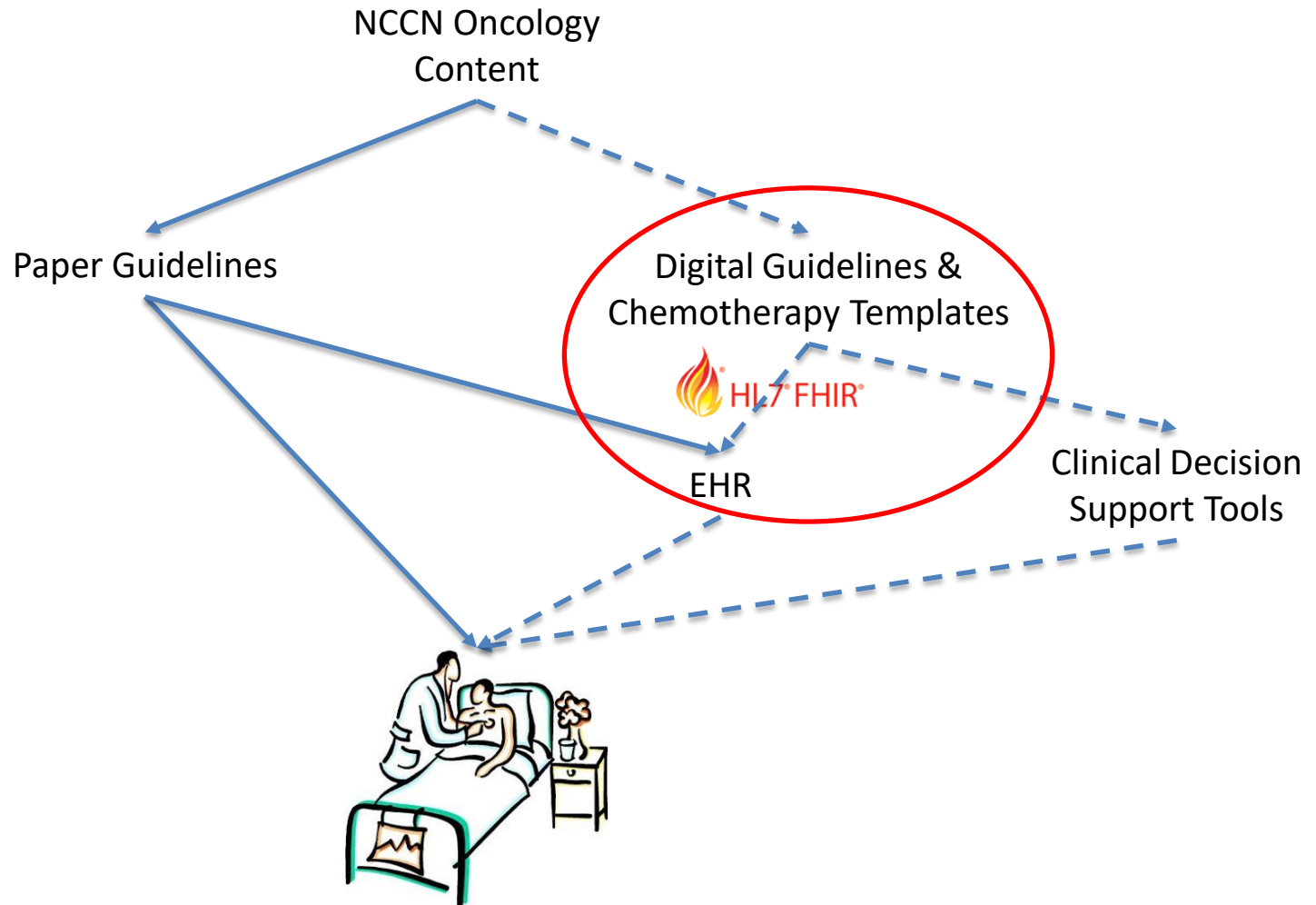
- To improve the quality, effectiveness, and efficiency of cancer care so that patients can live better lives

## Our Vision

- To be the world's leader in defining and advancing high-quality, high-value cancer care



# NCCN's Long-term (FHIR®) Vision





## The NCCN Chemotherapy Order Templates

- A library of ~1,500 chemotherapy order templates that are designed to improve the safe use of drugs and biologics in cancer care
- We have been working to represent our templates in the FHIR standard using the PlanDefinition resource
  - <http://hl7.org/fhir/2017Jan/plandefinition-example-kdn5-simplified.html>

### Plandefinition-example-kdn5-simplified

This is the narrative for the resource. See also the [XML](#) or [JSON](#) format. This example conforms to the [profile PlanDefinition](#).

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Chemotherapy Order Template  
Kidney Cancer

KDN5

Gemcitabine/CARBOplatin

#### INDICATION:

Metastatic or Relapsed – Collecting  
Duct/Medullary Subtypes

#### REFERENCES:

1. [NCCN Guidelines® for Kidney Cancer: V.3.2015.](#)
2. [Oudard S, et al. J Urol. 2007;177\(5\):1698-702. <sup>a</sup>](#)

#### NCCN SUPPORTIVE CARE:

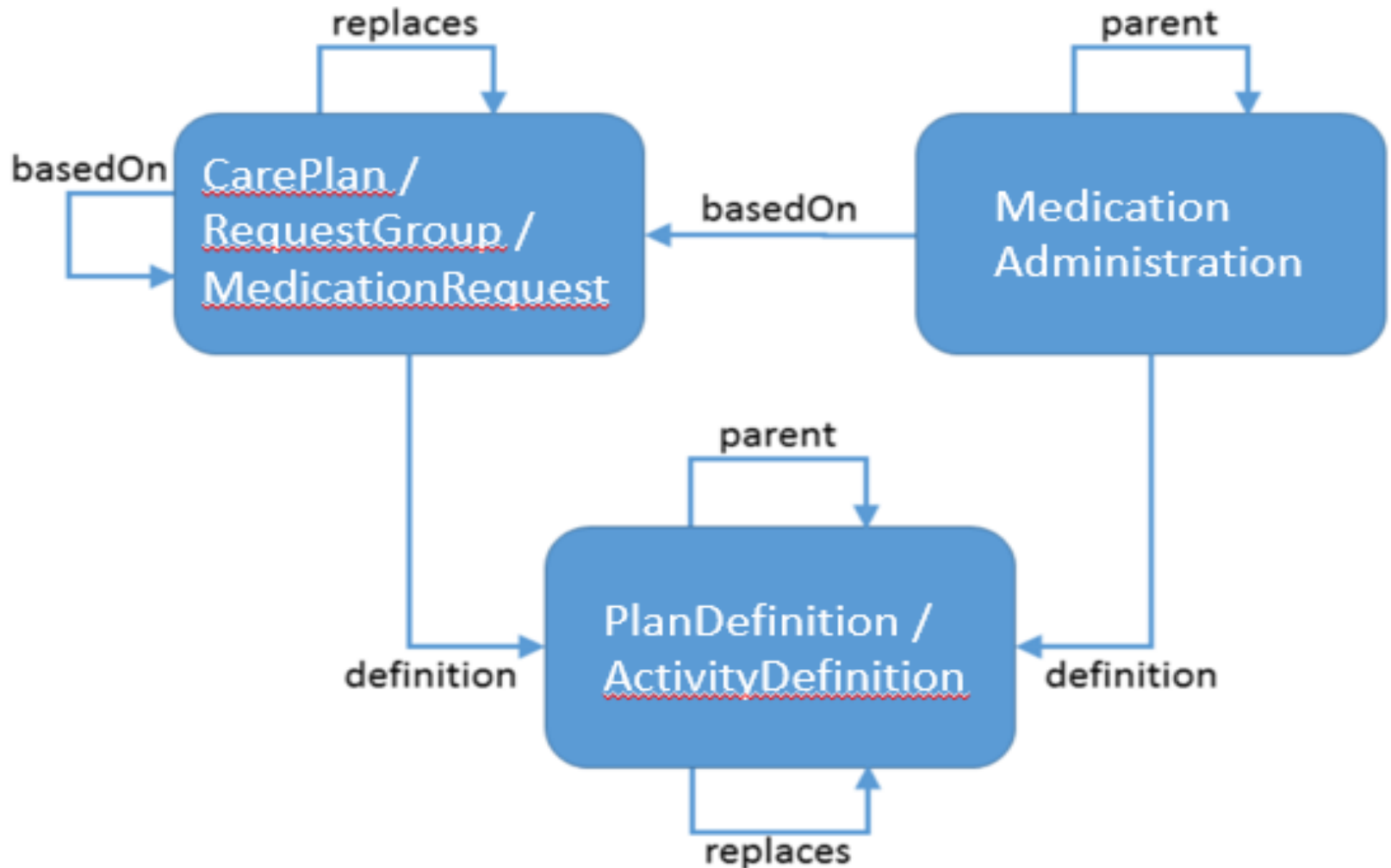
1. *Emetic Risk:*  
Day 1 Moderate  
Day 8 Low
2. *Fever Neutropenia Risk:*  
Refer to [NCCN Guidelines for Myeloid Growth Factors. V.2.2014](#)

#### CHEMOTHERAPY REGIMEN

*21-day cycle for 6 cycles*

- Gemcitabine 1250 mg/m<sup>2</sup> IV over 30 minutes on Days 1 and 8
- CARBOplatin AUC 5 IV over 30 minutes on Day 1

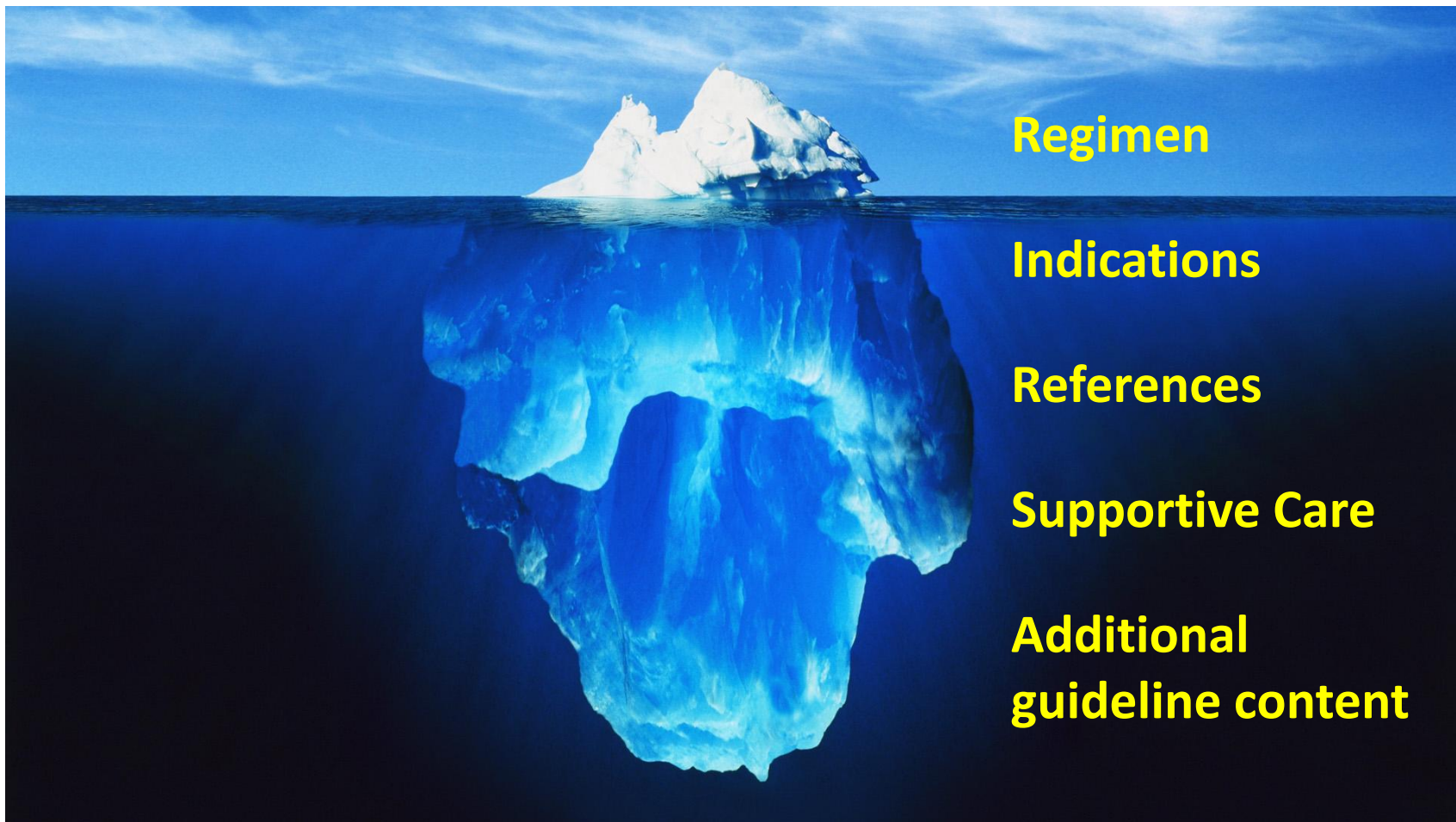
# FHIR Resources for NCCN Order Template Use Case





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# NCCN Templates® (cont.)



Picture from: <https://baldscientist.wordpress.com/2013/04/03/why-the-science-newsbite-is-just-the-tip-of-the-iceberg/>



Picture from: <http://aerosavvy.com/how-pilots-communicate/>



We want to help establish international standards for representing chemotherapy (and oncology information in general) in FHIR®

- See our wiki page at: [http://wiki.hl7.org/index.php?title=FHIR\\_Chemotherapy\\_IG#Documents](http://wiki.hl7.org/index.php?title=FHIR_Chemotherapy_IG#Documents)
- Join the conversation on [chat.fhir.org](http://chat.fhir.org) by subscribing to the “chemotherapy IG” stream!



Picture from: [http://www.123rf.com/photo\\_43095145\\_background-concept-wordcloud-multilanguage-international-many-language-illustration-of-chemotherapy-.html](http://www.123rf.com/photo_43095145_background-concept-wordcloud-multilanguage-international-many-language-illustration-of-chemotherapy-.html)



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# Questions?



Picture from: <http://www.businessnewsdaily.com/7793-job-interview-questions.html>