

Integration of UpToDate® with the Christie Clinical Web Portal & Results of a NHS North West Study

**Point of Care Study day
Glenfield Hospital, Leicester, 21 January 2014**

**Mr Steven Glover, Education Business Manager
The Christie NHS Foundation Trust**



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Researchers at Harvard found an association between the adoption of UpToDate and improved hospital quality performance, reduced length of stay, and lower mortality

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UpToDate® is the premier evidence-based clinical decision support resource authored by physicians to help healthcare practitioners make the best decisions at the point of care. By combining the latest clinical knowledge with cutting-edge technology, UpToDate changes the way clinicians practice medicine and has become an indispensable part of clinical workflows in institutions and practices worldwide.

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Christie Clinical Web Portal

Presentation Mode ON **NHS**

MENU PATIENT LISTS MESSAGES 6 SETTINGS HELP LOG OUT

System Menu

System Notices

Show: All System Notices

04/01/2013 UpToDate is now integrated with the clinical web portal

Wolters Kluwer Health | **UpToDate**

UpToDate® is now integrated with the clinical web portal.*

Click **HELP** on the light blue system navigation bar above to access **UpToDate** contents, calculators, help and demos.

UpToDate® is an evidence-based, physician-authored clinical decision support resource which clinicians trust to make the right point-of-care decisions. More than 5,100 world-renowned physician authors, editors and peer reviewers use a rigorous editorial process to synthesize the most recent medical information into trusted, evidence-based recommendations that are proven to improve patient care and quality. More than 600,000 clinicians in 149 countries and almost 90% of academic medical centers in the United States rely on UpToDate to provide the best care.

*Please note users accessing from peripheral clinics will need to enter their Athens login to view the premium content.

Continue

System Overview
Report Problem
Contact Adresses
UpToDate ▶
Table of Contents
Contents: Oncology
Medical Calculators
Patient Information
What's New
Help & Demos

UpToDate® is now integrated into the Christie clinical web portal navigation menus to provide easy single-click access to clinical decision support at the point of care



Christie Clinical Web Portal Presentation Mode: ON **NHS**

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Contents: Oncology - Windows Internet Explorer provided by The Christie NHS Foundation Trust

http://www.uptodate.com/contents/table-of-contents/oncology

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Contents > Oncology Print

Specialties
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What's New
Calculators
Authors and Editors

Contents: Oncology

You receive the entire UpToDate library of specialties with your subscription. Click on a section below to view a detailed list of topics associated with that particular section. If you'd like to see the table of contents for other specialties, click here.

Breast cancer	Gynecologic oncology	Plasma cell disorders
Cancer survivorship	Head and neck cancer	Prostate cancer
Chemotherapeutic agents	Leukemia myeloproliferative disorders	Radiation therapy
End of life care	Lung cancer	Skin cancer
Endocrine tumors	Lymphoma	Soft tissue and bone tumors
Gastrointestinal cancer	Miscellaneous tumors	Tumors immunocompromised host
General oncologic issues	Neurooncology	What's new in oncology
Genitourinary cancer	Oncology calculators	
Patient Information		

The portal opens UpToDate® in a pop-up browser window overlying the clinical record to enable the user to browse UpToDate® contents whilst maintaining contextual position within the record.



Hxxxxxx, Dxxxxxx

NHS: xxx xxx xxxx

Medical Alerts: None

Patient Menu

10/01/2013	Hotline, CULLIE, Barbara
19/12/2012	Outpatient, LIVSEY, Jacqueline
10/12/2012	Outpatient, LIVSEY, Jacqueline
05/12/2012	Hotline, MOREMAN, Anne
04/12/2012	Hotline, CULLIE, Barbara

21/12/2012	Jm8 (Carboplatin) Ij 450Mg/450Mg
21/12/2012	Taxol (Baxter) Rj 30
22/05/2012	Loperamide 2Mg Capsules
22/05/2012	Fybogel Sachets (Orange)
09/05/2012	Metoclopramide 10Mg Tablets

09/07/2012 Malignant neoplasm of cervix uteri

Send Message

06/02/2013	JOHNSON, Karen, Oak Rd Treatment Centre Dept 1
16/01/2013	JOHNSON, Karen, Oak Rd Treatment Centre Dept 1
09/01/2013	JOHNSON, Karen, Oak Rd Treatment Centre Dept 1

06/02/2013	Carbo + Paclitaxel , Cycle 6
16/01/2013	Carbo + Paclitaxel , Cycle 5
09/01/2013	Carbo + Paclitaxel , Cycle 5
19/12/2012	Carbo + Paclitaxel , Cycle 4
28/11/2012	Carbo + Paclitaxel , Cycle 3


03/09/2012 zACOG Gynae (VVC)
Diagnosis: FIGO Stage IB2, Adenocarcinoma, NOS of the Cervix
Plan: Concurrent Chemoradiotherapy. Treatment Intent, Curative
Consultant: LIVSEY JE - seen by LIVSEY.

Toggle UpToDate

29/05/2012 IC

The portal can also display context sensitive UpToDate® clinical decision support links within the clinical record. This is an individual user preference setting and the display of links can be toggled on screens if required.



Christie Clinical Web Portal Presentation Mode: ON 

MENU PATIENT LISTS MESSAGES 6 SETTINGS HELP LOG OUT

Patient Record: Summary Detail

Hxxxxxx, Dxxxxxx Gender: Female Born: xx/xx/xxxx (55y) Christie: 2012xxxxx NHS: xxx xxx xxxx

Address: Hidden in Presentation Mode GP Practice: Hidden in Presentation Mode Next OP: 16/01/2013 JOHNSON, Karen Medical Alerts: None

Clinical Notes	Prescribed Medications	Coded Diagnoses
10/01/2013 Hotline, CULLIE, Barbara	21/12/2012 Jm8 (Carboplatin) lj 450Mg/45MI 450Mg UpToDate	09/07/2012 Malignant neoplasm of cervix uteri UpToDate
19/12/2012 Outpatient, LIVSEY, Jacqueline	21/12/2012 Taxol (Baxter) Rj 30 UpToDate	
10/12/2012 Outpatient, LIVSEY, Jacqueline	22/05/2012 Loperamide 2Mg Capsules UpToDate	
05/12/2012 Hotline, MOREMAN, Anne	22/05/2012 Fybogel Sachets (Orange) UpToDate	
04/12/2012 Hotline, CULLIE, Barbara	09/05/2012 Metoclopramide 10Mg UpToDate	

Outpatient Appointments	Chemotherapy Treatments	Clinical Outcomes
06/02/2013 JOHNSON, Karen, Oak Rd Treatment Centre Dept 1	06/02/2013 Carbo + Paclitaxel , Cycle 6 UpToDate	03/09/2012 zACOG Gynae (VVC)
16/01/2013 JOHNSON, Karen, Oak Rd Treatment Centre Dept 1	16/01/2013 Carbo + Paclitaxel , Cycle 5 UpToDate	Diagnosis: FIGO Stage IB2, Adenocarcinoma, NOS of the Cervix UpToDate
09/01/2013 JOHNSON, Karen, Oak Rd Treatment Centre Dept 1	09/01/2013 Carbo + Paclitaxel , Cycle 5 UpToDate	Plan: Concurrent Chemoradiotherapy. Treatment Intent, Curative
	19/12/2012 Carbo + Paclitaxel , Cycle 4 UpToDate	Consultant: LIVSEY JE - seen by LIVSEY,
	28/11/2012 Carbo + Paclitaxel , Cycle 3 UpToDate	

Surgical Procedures	Radiology Results	MDT Outcomes
29/05/2012 IC		
22/05/2012 IC		

Patient Menu

- Summary Totals
- Clinical Notes
- Web Forms
- Send Message
- Blood Results
- request Imaging**
- Toggle UpToDate
- Referral Details

The portal can also display context sensitive UpToDate[®] clinical decision support links within the clinical record. This is an individual user preference setting and the display of links can be toggled on screens if required.



MENU

PATIENT

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SETTINGS

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Patient Record: Summary Detail

Hxxxxxx, Dxxxxxx

Gender: Female

Born: xx/xx/xxxx (55y)

Christie: 2012xxxxx

NHS: xxx xxx xxxx

Address: Hidden in Presentation Mode

GP Practice: Hidden in Presentation Mode

Next OP: 16/01/2013 JOHNSON, Karen

Medical Alerts: None

Clinical Notes

10/01/2013 Hotline, CULLIE, Barbara
19/12/2012 Outpatient, LIVSEY, Jacqueline
10/12/2012 Outpatient, LIVSEY, Jacqueline
05/12/2012 Hotline, MOREMAN, Anne
04/12/2012 Hotline, CULLIE, Barbara

Outpatient Appointments

06/02/2013 JOHNSON, Karen, Oak Rd Treatment Centre Dept 1
16/01/2013 JOHNSON, Karen, Oak Rd Treatment Centre Dept 1
09/01/2013 JOHNSON, Karen, Oak Rd Treatment Centre Dept 1

Surgical Procedures

29/05/2012 ICT
22/05/2012 ICT

Prescribed Medications

21/12/2012 Jm8 (Carboplatin) Ij 450Mg/45MI 450Mg UpToDate
21/12/2012 Taxol (Baxter) Rj 30 UpToDate
22/05/2012 Loperamide 2Mg Capsules UpToDate
22/05/2012 Fybogel Sachets (Orange) UpToDate
09/05/2012 Metoclopramide 10Mg UpToDate

Chemotherapy Treatments

06/02/2013 Carbo + Paclitaxel , Cycle 6 UpToDate
16/01/2013 Carbo + Paclitaxel , Cycle 5 UpToDate
09/01/2013 Carbo + Paclitaxel , Cycle 5 UpToDate
19/12/2012 Carbo + Paclitaxel , Cycle 4 UpToDate
28/11/2012 Carbo + Paclitaxel , Cycle 3 UpToDate

Radiology Results

30/11/2012 CT Thorax abdomen pelvis + contrast
10/10/2012 NM GFR Estimation (3 samples)
26/09/2012 CT Thorax abdomen pelvis + contrast
14/09/2012 MRI Liver with contrast
20/08/2012 CT Thorax

Coded Diagnoses

09/07/2012 Malignant neoplasm of cervix uteri UpToDate

Clinical Outcomes

03/09/2012 zACOG Gynae (VVC)

Diagnosis: FIGO Stage IB2, Adenocarcinoma, NOS of the Cervix UpToDate

Plan: Concurrent Chemoradiotherapy. Treatment Intent, Curative

Patient Menu

Summary Totals

Clinical Notes

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Blood Results

Request Imaging

Toggle UpToDate

The UpToDate® buttons provide context sensitive links to clinical diagnoses, medications and chemotherapy treatment regimens



Christie Clinical Web Portal

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CARBOPLATIN PACLITAXEL - Windows Internet Explorer provided by The Christie NHS Foundation Trust

http://www.uptodate.com/contents/search?search=CARBOPLATIN%20%20%20%20PACLITAXEL%20

UpToDate. CARBOPLATIN PACLITAXEL All Topics Search

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New Search Patient Info What's New Calculators Log in

Search Results for "CARBOPLATIN PACLITAXEL"

All Topics

- Adult
- Pediatric
- Patient
- Graphics

- Treatment protocols for non-small cell lung cancer
- Treatment protocols for gynecologic malignancies**
- Initial systemic chemotherapy for advanced non-small cell lung cancer without an epidermal growth factor receptor mutation or the ALK fusion oncogene
- First-line chemotherapy for advanced (stage III or IV) epithelial ovarian, fallopian tubal, or peritoneal cancer
- Medical treatment for relapsed epithelial ovarian, fallopian tubal, or peritoneal cancer: Platinum-sensitive disease
- Neoadjuvant chemotherapy for newly diagnosed locally advanced breast cancer
- Multimodality approaches to potentially resectable pancreatic adenocarcinomas
- Reirradiation for locally recurrent head and neck cancer
- Radiation therapy, chemoradiotherapy, or surgery for localized cancers of the esophagus
- Advanced non-small cell lung cancer: Treatment with epidermal growth factor receptor tyrosine kinase inhibitors
- Treatment of metastatic and recurrent head and neck cancer
- Treatment of metastatic urothelial cancer of the bladder and urinary tract
- Treatment of locally advanced, recurrent, or metastatic endometrial cancer

Topic Outline

INTRODUCTION

- Ovarian cancer
- Endometrial cancer
- Cervical cancer
- Uterine sarcoma

REGIMENS

- Regimens for ovarian cancer
 - Cisplatin plus paclitaxel
 - Carboplatin plus paclitaxel**
 - Carboplatin plus pegylated liposomal doxorubicin
- CCC-473 regimen for recurrent (IV) paclitaxel followed by cisplatin

GRAPHICS

TABLES

For example clicking on the treatment regimen of Carbo+Paclitaxel provides a context sensitive link to UpToDate® contents for Carboplatin and Paclitaxel



← ↺

Christie Clinical Web Portal

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Clinical Diagnosis Coding

Diagnosis:

Search ?

	Patients	ICD10 Code	Diagnosis Type	Diagnosis Subtype	UpToDate
View	85	E249	Cushing's syndrome	Cushing's syndrome, unspecified	UpToDate
View	2	E243	Cushing's syndrome	Ectopic ACTH syndrome	UpToDate
View	18	E240	Cushing's syndrome	Pituitary-dependent Cushing's disease	UpToDate

Authorised clinicians can also search the Christie clinical web portal for patients by diagnosis, and by a single-click perform an UpToDate® search on the condition.



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Cushing's syndrome Cushing's syndrome, unspecified - Windows Internet Explorer provided by The Christie NHS Foundation Trust

http://www.uptodate.com/contents/search?search=Cushing's%20syndrome%20Cushing's%20syndrome,%20unspecified

UpToDate. Cushing's syndrome Cushing's sy All Topics Search About Us News from UpToDate Contact Us Help

New Search Patient Info What's New Calculators Log in

Search Results for "Cushing's syndrome Cushing's syndrome, unspecified"

Click related term for **unspecified**: [peripheral t cell lymphoma](#), [unspecified insomnia](#)

All Topics

- Adult
- Pediatric
- Patient
- Graphics

Overview of the treatment of Cushing's syndrome

- Establishing the diagnosis of Cushing's syndrome
- Epidemiology and clinical manifestations of Cushing's syndrome
- Establishing the cause of Cushing's syndrome
- Cushing's syndrome in pregnancy
- Causes and pathophysiology of Cushing's syndrome
- Cushing's syndrome due to ACTH-independent macronodular adrenal hyperplasia
- Cushing's syndrome due to primary pigmented nodular adrenocortical disease
- Persistent or recurrent Cushing's syndrome
- Primary therapy of Cushing's syndrome
- Medical therapy of Cushing's syndrome
- The adrenal incidentaloma
- Overview of the risk factors, pathology, and clinical manifestations of lung cancer
- Glucocorticoid effects on the nervous system and behavior
- Corticotropin-releasing hormone stimulation test
- Treatment of adrenocortical adenomas

Topic Outline

- INTRODUCTION
- GENERAL PRINCIPLES
- EXOGENOUS CUSHING'S SYNDROME
- CUSHING'S DISEASE
 - Transsphenoidal surgery
 - Pituitary irradiation
 - Adrenalectomy
 - Cytotoxic chemotherapy
- ECTOPIC ACTH AND CRH SYNDROMES
 - Glucocorticoid antagonists
- PROGNOSIS
- INFORMATION FOR PATIENTS
- SUMMARY
- GRAPHICS

For example to show all information on UpToDate® topics relating to “Cushing’s syndrome and ectopic ACTH”.



MENU

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Christie Clinical Web Forms

Hxxxxxx, Dxxxxxx

Gender: Female

Born: xx/xx/xxxx (55y)

Christie: 2012xxxxx

NHS: xxx xxx xxxx

Address: Hidden in Presentation Mode

GP Practice: Hidden in Presentation Mode

Next OP: 16/01/2013 JOHNSON, Karen

Medical Alerts: None

COG Form Lymphoma

You should complete this form for each new primary referral to your specialty.

* Referring Hospital: The Christie NHS FT

* Referred By: Dr Cowan

(typing a surname will filter the list
but you may also enter a new name)

* Seen By: BRAMLEY, Rhidian

* Date Seen: 13/01/2013 dd/mm/yyyy

* Responsible Consultant: RADFORD JA

* Consultant Conferred: Yes

* Primary Disease Site: Lymphoma

* Histology: NHL, Mantle cell lymph

* Clinical stage: Stage III
Ann Arbor* B Symptoms: ☐ Yes ☐ No

* Disease Bulk:

* Extra-nodal Disease:

UpToDate® is also integrated into the Christie portal clinical web forms enabling form designers to include context sensitive help and access to medical decision support calculators

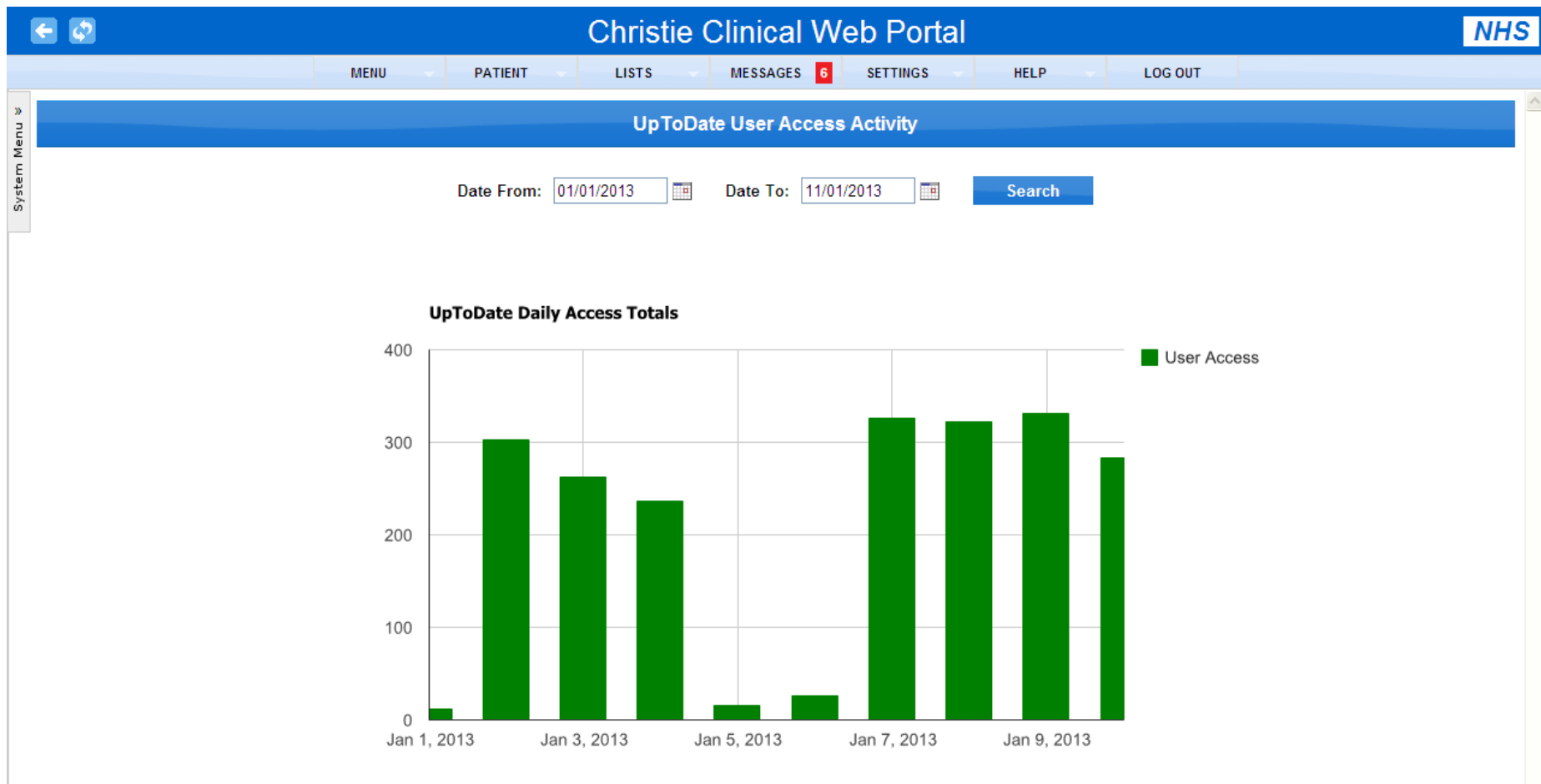
Help

Primary Disease Site



Show Lymphoma on UpToDate





All user access to UpToDate® via the Christie clinical web portal is now logged enabling analysis of user activity and subject access via the context sensitive links



North West Study

- Pilot study carried out in 2010 at Pennine Acute Hospitals Trust
- 12 Acute trusts
- Survey via email link to online questionnaire
- Both quantitative and qualitative data
- Responses were anonymous
- Responses classified by emerging theme
- 299 responses



Table 1 *Which trust are you currently working at?*

Trust	No. of respondents
Salford Royal	67
Royal Liverpool and Broadgreen	50
Pennine Acute	45
Stockport	41
Royal Bolton	32
Morecambe Bay	25
Blackpool	13
Lancashire Teaching Hospitals	9
Warrington & Halton	7
Trafford	4
Others, not indicated, or indecipherable	6



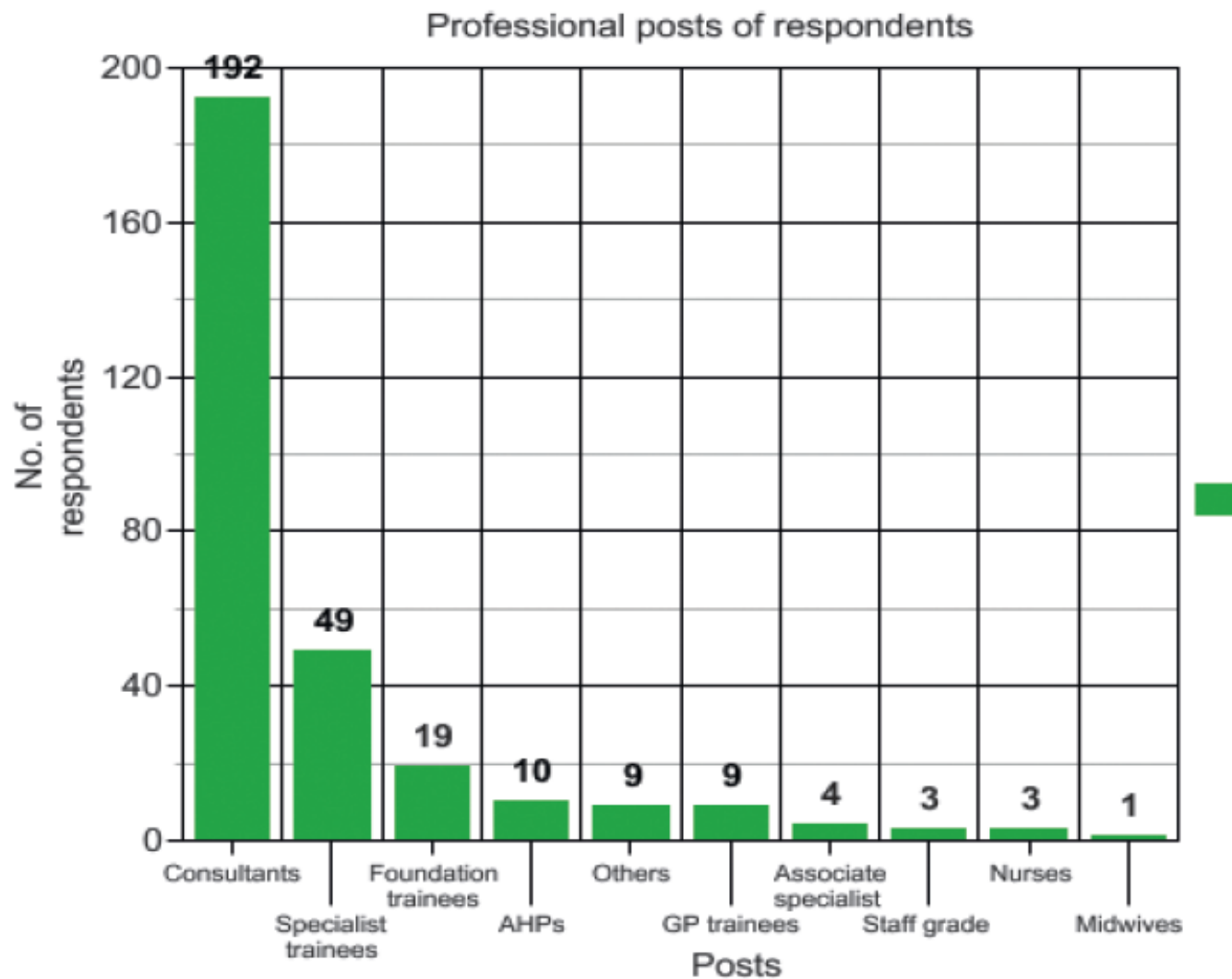


Figure 1 Please identify your professional post from the list below



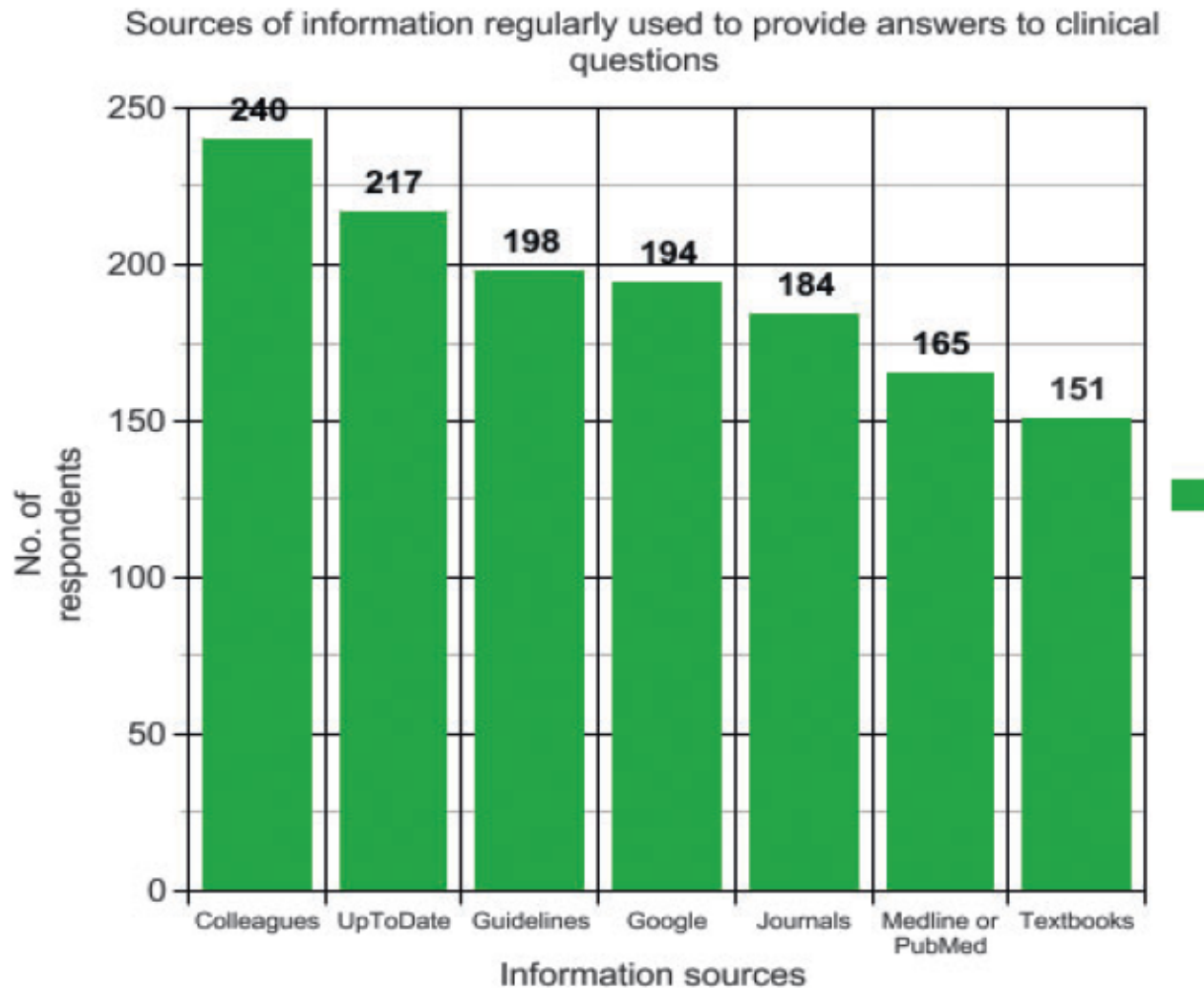


Figure 2 Which sources of information do you regularly consult to answer a clinical question?



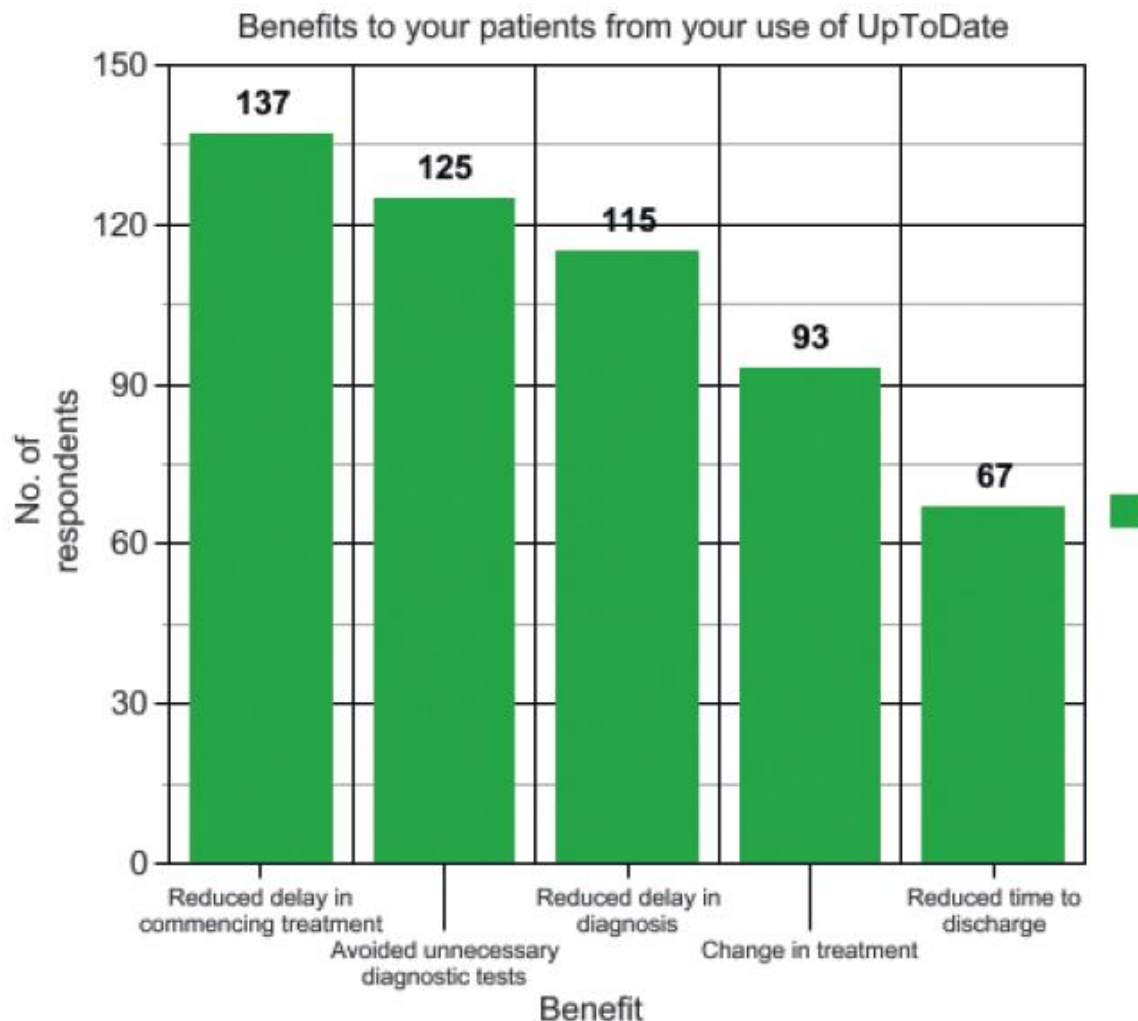


Figure 3 In the scenario you have described please indicate which benefit(s) your patient received as a result of your use of *UpToDate*



Table 2 Responses of staff unable to provide an example of using *UpToDate* analysed by category

Response	No. of replies
Never used	39
N/A	9
Never heard of/not aware of	6
Not sure what it is	4
Rarely use	1
Password didn't work	1



Limitations of the study

- Study was conducted at trusts with access to UpToDate
- Sample was a convenience sample
- Questions were predetermined
- Not asked to give comparator data
- Respondents asked to give positive examples where UpToDate provides benefits to patient care
- Response rate hard to quantify



Acknowledgments

- Dr Rhidian Bramley – Chief Clinical Information Officer, The Christie
- John Addison – Librarian, Pennine Acute
- Jo Whitcombe, Librarian, Pennine Acute
- Librarians at participating trusts

How doctors make use of online, point-of-care clinical decision support systems: a case study of UpToDate©



How doctors make use of online, point-of-care
clinical decision support systems:
a case study of UpToDate©

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