The Costs for Oral Antiviral Delivery in UK Clinical Practice: Expert Opinion Survey

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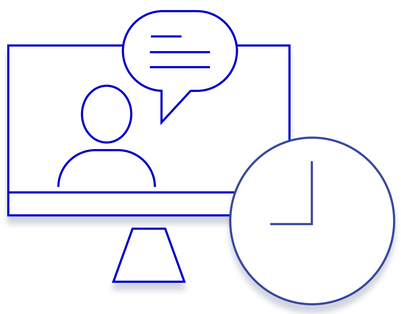
INTRODUCTION

- To facilitate the availability of efficacious and cost-effective treatments in England, new health technologies are evaluated by the National Institute of Health and Care Excellence (NICE). The purpose of NICE appraisals are to provide an independent and rigorous evidence assessment and to develop recommendations for access to these new therapeutics through NHS commissioning if they are shown to be cost-effective.
- To accurately appraise the cost effectiveness of new oral antivirals through the NICE pathway, it is important to model data and inputs reflective of likely clinical practice once guidance is in place, which across the landscape of COVID-19 testing and treatment delivery has changed drastically over the course of the pandemic.
- In order to fill these evidence gaps and accurately inform economic evaluations into therapeutics for COVID-19, opinions were sought from relevant healthcare professionals (HCPs) to accurately derive the delivery costs of oral antivirals in UK clinical practice.

OBJECTIVE

- To determine the time requirements and associated costs of drug-drug interaction (DDI) assessment and overall administration of oral antivirals in the UK, including those for the treatment of COVID-19 in contemporary clinical practice.

METHODS



- An online survey was developed with questions designed to elicit information on DDI review time and overall review and dispensing time requirements for oral antivirals for COVID-19, human immunodeficiency virus (HIV) and other indications in a primary care environment. For validation of the appropriateness and relevance of the survey, the questions underwent two rounds of review from medical experts within Pfizer.
- The final survey questions were disseminated via an online platform and comprised of 16 closed-ended questions; participants were asked to select an answer to each question from a drop-down list of options.
- The survey was sent to HCPs listed as a nurse, doctor or pharmacist with specialties indicating experience in the prescription of oral antivirals for COVID-19, HIV or other oral antivirals in the community setting.
- Participants were identified from a GDPR compliant E-permissions database; their identities and respective responses were fully anonymised. The survey was live between Friday 19th – Monday 22nd May 2023.
- Weighted averages from the survey were calculated for time requirements of DDI review, overall clinical review, prescribing and dispensing for both standard and complex patients.
- HCP responses to the question 'what is the NHS banding of the person who performs the DDI review' were used to define relevant HCP roles; these were mapped to Personal Social Services Research Unit (PSSRU)[1] derived hourly rates and weighted averages of responses were calculated. Overall average costs were calculated **(Figure 1)**.

METHODS (CONTINUED)

Figure 1: Calculation of overall average costs

*Overall costs calculated as a weighted average based on time required and the proportional split of HCP roles involved as indicated by survey responses

RESULTS

- 36 HCPs responded to the questions relating to COVID-19, 25 responding to questions on HIV, and 23 to questions on oral antiviral administration in other indications. Responses to questions on the role/NHS band of the HCP performing DDI review in current practice indicate 46% are conducted by a hospital-based doctor, 32% by a hospital-based pharmacist, and 22% by a hospital-based nurse.
- Overall average DDI review time across indications was ≤15 minutes in standard patients and ≤45 minutes in complex patients **(Figure 2)**. The majority of HCPs agreed that the overall clinical review, prescribing and dispensing of oral antivirals across indications takes ≤30 minutes in standard patients and ≤1 hour in complex patients **(Figure 3)**.

Figure 2: How long does the DDI review for these oral antivirals take (in minutes)?

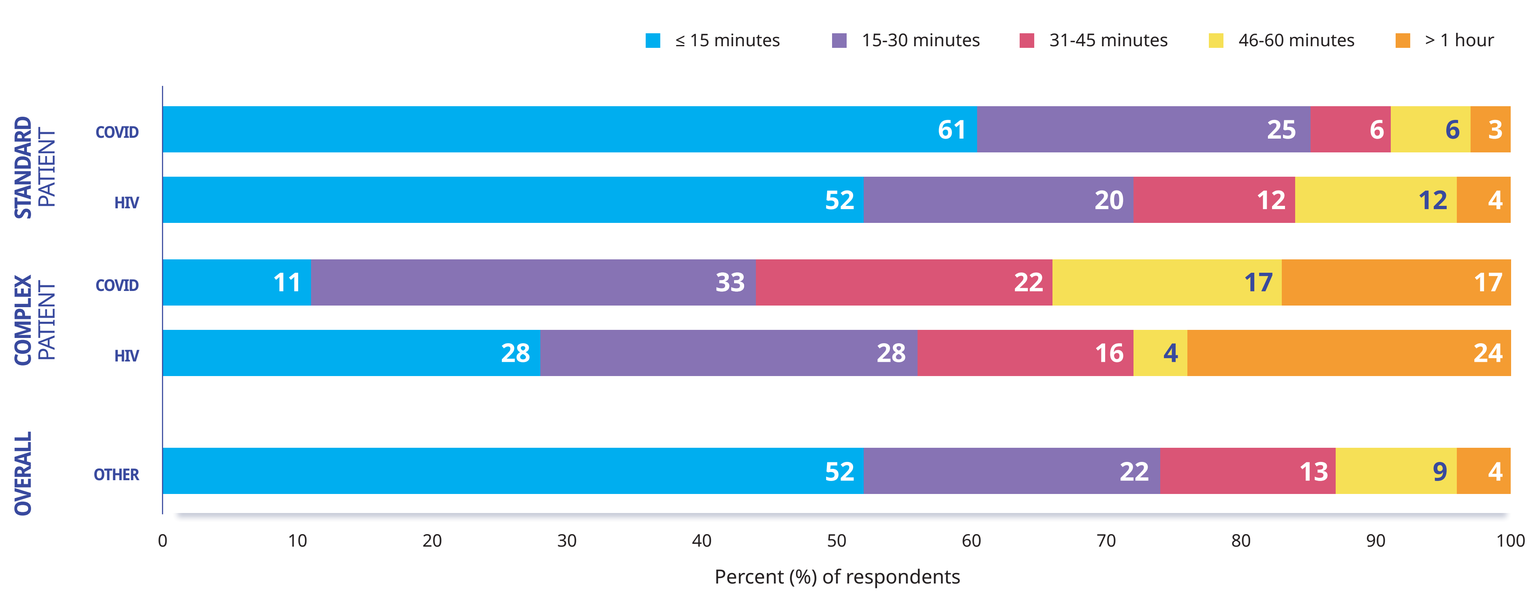
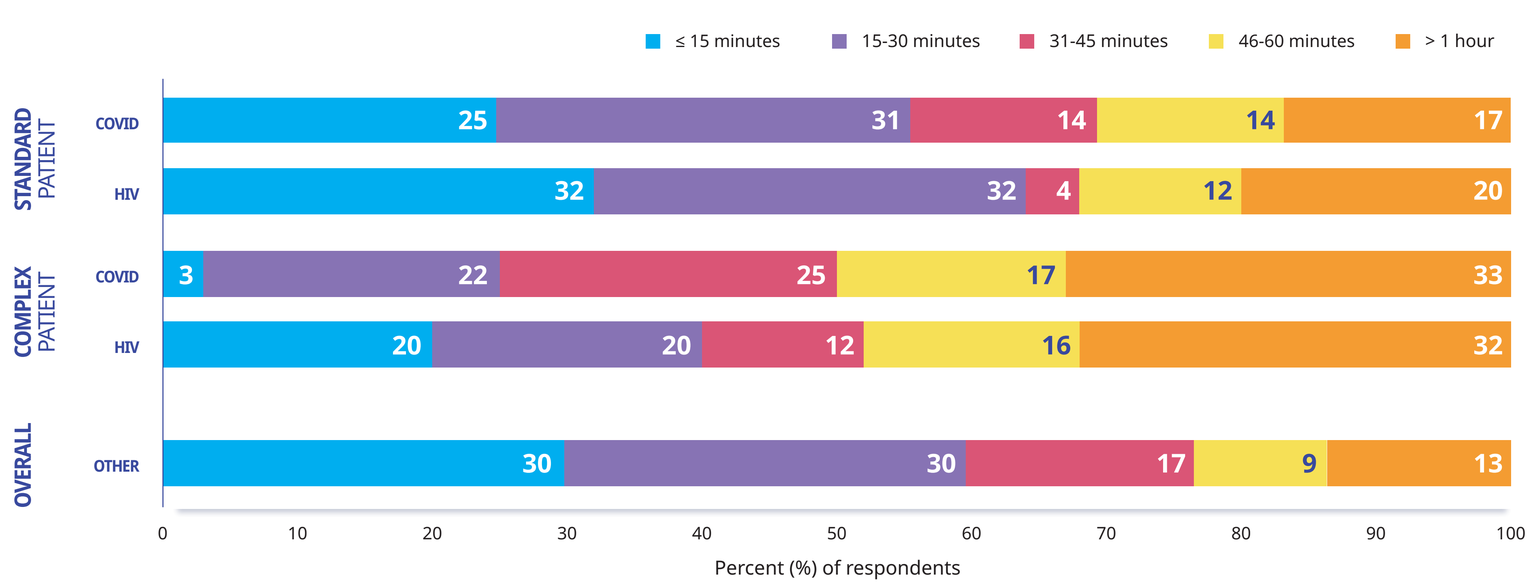


Figure 3: Including DDI review, how long does the clinical review, prescribing and dispensing of these oral antivirals take (in minutes)?



- The cost of **DDI review** for oral antivirals for standard and complex patients with COVID-19 were **£42.94** and **£85.88**, respectively. The cost of **overall clinical review, prescribing and dispensing** of oral antivirals for standard and complex patients for COVID-19 were **£78.94** and **£113.58**, respectively.

CONCLUSION

- These results provide a contemporary estimate of administration and DDI review costs of oral antivirals in UK clinical practice. These costs and broader methodology employed may be used by payers to validate administration and DDI associated costs for oral antivirals in economic models and were accepted by NICE in a recent technology apraisal.[2]

DISCLOSURES

R Butfield, T Mugwagwa and K Naicker are employees of Pfizer and may hold stock or stock options. B Wilding and E Matthews are employees of HEOR who received payment to conduct this survey. Funding: Funding for this research was provided by Pfizer Ltd.

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1. Personal Social Services Research Unit (PSSRU). Unit Costs of Health and Social Care programme 2022. Available from: https://www.pssru.ac.uk/unitcostsreport/.May 2023
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