

Improving health outcomes for care home residents

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# Decaffeination and falls prevention



A joint investigation by Care England and Stow Healthcare, in partnership with University Hospitals of Leicester NHS Trust

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April 2024



### About Care England

Care England is the largest and most diverse representative body for independent providers of adult social care in England. Care England's members run and manage over 4,000 care services and provide over 100,000 care home places and a variety of services for older people and those with long-term conditions, learning disabilities and mental health needs. Care England speaks with a single voice on behalf of our members and the sector as a whole to try and create an environment in which providers can continue to develop and deliver high-quality care.

### About Stow Healthcare

Stow Healthcare is a multi-award-winning care provider, which was established in 2010 and is owned and operated by siblings Ruth French and Roger Catchpole. Today, the business delivers quality care to over 350 residents across eight residential and nursing homes in Suffolk, Norfolk, and Essex, four of which have been rated outstanding by the Care Quality Commission (CQC).

### About University Hospitals of Leicester NHS Trust (UHL)

UHL is a national and regional centre for specialist treatment, a renowned biomedical research facility and the local hospital for communities in Leicester, Leicestershire and Rutland. UHL has an established international reputation for research excellence in cardiovascular, respiratory, diabetes, renal and cancer medicine. Together with University of Leicester, Loughborough University and De Montfort University UHL provides world-class training for the future NHS workforce. UHL's three acute sites are the Leicester Royal Infirmary, the Leicester General Hospital and the Glenfield Hospital. UHL provides services in seven community hospitals as well as in people's homes and virtually.

With thanks to:



**Tetley has been proud to provide Tetley decaf for use in this trial.**



**NESCAFÉ B2B by Nestlé Professional are proud to supply decaf coffee for use in this trial.**

## Acknowledgements

Care England and Stow Healthcare wish to express their gratitude to residents, families and staff across Stow Healthcare's services for their enthusiasm and support with this project.

Similarly, to Sarah Coombes, Continence Nurse Specialist at University Hospitals of Leicester (UHL), for her work with the original 'Taste the Difference Challenge', which served as the inspiration for this trial, and for her support throughout the project, including the resources she shared, her guidance throughout the trial and her support with writing this report.

Finally, to Tetley and NESCAFÉ B2B by Nestlé Professional for providing free decaffeinated products for the first three months of the trial.

# Contents

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<b>Executive Summary</b>	<b>5</b>
<b>Introduction</b>	<b>7</b>
<b>Project Overview</b>	<b>9</b>
<b>Methodology</b>	<b>10</b>
<b>Results</b>	<b>13</b>
<b>Discussion</b>	<b>18</b>
<b>Conclusion</b>	<b>20</b>
<b>References</b>	<b>21</b>

# Executive Summary

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- Research has suggested a high correlation between falls and lower urinary tract symptoms in hospital.<sup>1</sup> Caffeine has a diuretic effect, impacting the bladder and bowel and increasing the urgency of using the toilet. This may be a contributing factor to falls, particularly among elderly or infirm people who often have limited mobility and a higher prevalence of incontinence than the general population.<sup>2</sup> In addition to the health impact on individuals, fragility fractures cost the NHS an estimated £4.4bn each year, including £1.1bn from social care.<sup>3</sup>
- In 2021, University Hospitals of Leicester NHS Trust (UHL) implemented the 'Taste the Difference Challenge', an initiative whereby hospital patients were offered decaffeinated hot drinks as the default option in an attempt to reduce falls relating to toileting. The trial resulted in a 30% reduction in falls relating to toileting among inpatients after three months.<sup>4</sup>
- Having learned of the results of the 'Taste the Difference Challenge', Care England and Stow Healthcare sought to trial the initiative in a care home setting. Falls are the most common cause of injury related deaths in people over the age of 75 and contribute significantly to fragility fractures among older people.<sup>5</sup> People living in care homes are three times more likely to fall than those living at home; they are usually older, more frail and less mobile than people living in the community, with a higher prevalence of incontinence than the general population.<sup>6</sup> It was hypothesised that, due to these factors, the results of the 'Taste the Difference' challenge may translate to a care home setting and lead to a reduction in toileting-related falls.

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[1] S Roggemen, J.P Weiss, E. Van Laecke, J. Vande Walle, K.Everaert, W.F. Bower, (2020), The role of lower urinary tract symptoms in fall risk assessment tools in hospitals: a review, <https://pubmed.ncbi.nlm.nih.gov/32269762/>

[2] Offermans, M. P. W. et al (2009), Prevalence of urinary incontinence and associated risk factors in nursing home residents: a systematic review, PMID: 19191259 DOI: 10.1002/nau.20668, <https://pubmed.ncbi.nlm.nih.gov/19191259/>

[3] Office for Health Improvement & Disparities (2022), Falls: applying All Our Health, <https://www.gov.uk/government/publications/falls-applying-all-our-health/falls-applying-all-our-health>

[4] Sarah J Coombes (2024), Taste the difference challenge: switching to decaffeinated tea and coffee for a healthy bladder, <https://www.ucc-today.com/journals/issue/launch-edition/article/taste-difference-challenge-switching-decaffeinated-tea-and-coffee-healthy-bladder>

[5] Age UK (2019), Falls in later life: a huge concern for older people, <https://www.ageuk.org.uk/latest-press/articles/2019/may/falls-in-later-life-a-huge-concern-for-older-people/>

[6] NIHR (2022), Falls prevention programme is effective in care homes, <https://evidence.nihr.ac.uk/alert/falls-prevention-programme-effective-care-homes/>

- Between June – November 2023, with the support of Care England, Stow Healthcare implemented a decaffeination trial across eight of their residential care homes. 89% of Stow Healthcare’s approximately 350 residents choose to be part of the trial from the outset (June 2023), drinking solely or predominantly decaffeinated drinks, rising to 92% by November 2023. Data relating to all falls, and specifically falls that were most likely to be associated with going to the toilet, were collated each month.
- Following the implementation of decaffeinated hot drinks as the default option, toileting-related falls decreased by 34.72%. Toileting-related falls as a proportion of total falls fell by 29.21% over the trial period. Resident feedback was generally very positive, with most of those participating not noticing a significant difference in taste and, even where direct health benefits were not immediately obvious, were happy to continue with the trial. Stow Healthcare consider the trial to have been a success and will be encouraging residents to drink predominantly decaffeinated hot drinks going forwards, whilst continuing to offer information and choice.
- The results of this trial appear to corroborate the findings of the ‘Taste the Difference Challenge’ conducted by UHL in 2021. The reduction in toileting-related falls observed across Stow Healthcare’s homes (34.72%) is comparable to the reduction observed at UHL (30%). This is despite factors which may have suggested otherwise – including that hospital patients can be expected to see their overall health improve over time, while care home residents’ wellbeing tends to deteriorate, the prevalence of ensuite facilities and lesser distance travelled by care home residents to reach the toilet, and, finally, that care home residents often have complex co-morbidities which may mitigate the potential positive impact of decaffeination on falls related to toileting.
- Consideration should be lent to conducting larger-scale research into the impact of decaffeination on falls related to toileting in a care home setting. If these findings were scaled up across the sector, it would result in a dramatic improvement in health outcomes for care home residents across the country and deliver considerable savings to the NHS each year.

# Introduction

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Caffeine can serve as a stimulant, an irritant, and a diuretic. It increases blood flow to the kidneys, increasing the amount of fluid and sodium filtered in the renal cortex and eventually increasing urine production.<sup>7</sup> This, in turn, can increase the frequency and urgency with which someone needs to urinate (or defecate).

In 2021, as a part of continence awareness week, the UHL adult continence team launched the 'Taste the Difference Challenge'. Having experienced an increase in inpatient falls relating to toileting, the trial drew on research suggesting a high correlation between falls and lower urinary tract symptoms in hospital.<sup>8</sup> The initiative aimed to explore whether a reduction in caffeine would, by limiting its diuretic effect, reduce toileting-related falls as patients did not rush to the toilet as urgently.

Patients and staff were invited to see whether they could 'taste the difference' between caffeinated and decaffeinated hot drinks and were informed about the benefits of switching to decaffeinated tea and coffee for a healthy bladder. Patients were invited to opt-in to the trial, meaning they would be offered decaffeinated tea and coffee as the default option, with caffeinated drinks still available on request. Over 50% of patients said they could not 'taste the difference' and over 76% reported that they would switch to decaffeinated once they knew about the potential health benefits of doing so.

The result of the 'Taste the Difference Challenge' was a 30% reduction in the number of falls occurring on the way to the toilet. Furthermore, 63% of patients attending UHL's outpatient continence clinic reported an improvement in overactive bladder symptoms after switching to decaffeinated drinks. After a recommendation based on the trial results, UHL's leadership team decided to support the initiative and on 14 February 2022 the switch to decaffeinated drinks was officially launched. As of September 2023, toileting-related falls at UHL have reduced even further to just 6.75 per month (a 61% reduction compared to the pre-decaffeination period).



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[7] Urology & Continence Care Today (2024), Taste the difference challenge: switching to decaffeinated tea and coffee for a health bladder, <https://www.ucc-today.com/journals/issue/launch-edition/article/taste-difference-challenge-switching-decaffeinated-tea-and-coffee-healthy-bladder>

[8] S Roggemen, J.P Weiss, E. Van Laecke, J. Vande Walle, K.Everaert, W.F. Bower, (2020), The role of lower urinary tract symptoms in fall risk assessment tools in hospitals: a review, <https://pubmed.ncbi.nlm.nih.gov/32269762/>

Having learned of the results of the UHL 'Taste the Difference Challenge', Care England, the largest and most diverse representative body for independent providers of adult social care in England, sought to trial the initiative in a care home setting.

Falls are the most common cause of injury related deaths in people over the age of 75 and contribute significantly to fragility fractures among older people.<sup>9</sup> People living in care homes are three times more likely to fall than those living at home; they are usually older, more frail and less mobile than people living in the community.<sup>10</sup>

The Office for Health Improvement and Disparities (OHID) highlights that: "Falls and fractures are a common and serious health issue faced by older people in England. People aged 65 and older have the highest risk of falling; around a third of people aged 65 and over, and around half of people aged 80 and over, fall at least once a year. Falling is a cause of distress, pain, injury, loss of confidence, loss of independence and mortality."<sup>11</sup>

Fragility fractures also come at a massive cost to the NHS each year, with the OHID noting "the total annual cost of fragility fractures to the UK has been estimated at £4.4 billion which includes £1.1 billion for social care; hip fractures account for around £2 billion of this sum."

With this in mind, Care England hosted a webinar for care providers with Sarah Coombes, Continence Nurse Specialist at UHL, sharing the results of the 'Taste the Difference Challenge' and seeking interested providers to partake in a trial in a care home setting.

Stow Healthcare, a group of eight nursing and residential homes in East Anglia caring for over 350 residents, was the first organisation to work with Care England to trial decaffeination across its settings.

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[9] Age UK (2019), Falls in later life: a huge concern for older people, <https://www.ageuk.org.uk/latest-press/articles/2019/may/falls-in-later-life-a-huge-concern-for-older-people/>

[10] NIHR (2022), Falls prevention programme is effective in care homes, <https://evidence.nihr.ac.uk/alert/falls-prevention-programme-effective-care-homes/>

[11] GOV.UK (2022), Falls: applying All Our Health, <https://www.gov.uk/government/publications/falls-applying-all-our-health/falls-applying-all-our-health#measuring-impact>



# Project Overview

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The aim of the project was to conduct a three-month trial from 1 June 2023 (subsequently extended to six months, ending in November 2023) to explore whether offering decaffeinated drinks as the default option across Stow Healthcare's care homes would reduce the number of falls associated with going to the toilet. The ultimate goal was therefore to improve health outcomes for residents by reducing the risk of injury through falls.

The trial sought to answer the following question:

*Does the provision of predominantly decaffeinated coffee and tea to care home residents lead to fewer falls associated with using the toilet?*

As part of their work to ensure their services are fully compliant with the sector regulator, the Care Quality Commission (CQC), Stow Healthcare consider this project to be evidence of the following Quality Statements.

## **Effective:**

- **Supporting people to live healthier lives** – We support people to manage their health and wellbeing so they can maximise their independence, choice and control, live healthier lives and where possible, reduce their future needs for care and support.
- **Monitoring and improving outcomes** – We routinely monitor people's care and treatment to continuously improve it and to ensure that outcomes are positive and consistent and that they meet both clinical expectations and the expectations of people themselves.

## **Well-led:**

- **Learning, improvement and innovation** – We focus on continuous learning, innovation and improvement across our organisation and the local system. We encourage creative ways of delivering equality of experience, outcome and quality of life for people. We actively contribute to safe, effective practice and research.

The trial was conducted with the following assumption:

*Caffeine can serve as a stimulant, an irritant and a diuretic, can increase the frequency with which someone needs to urinate (or defecate) and can mean someone needs to use the toilet more quickly, therefore potentially risking more falls.*

## Methodology

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This research project took place across eight care homes owned by Stow Healthcare. The research focused on older people over the age of 65, however, there were a small number of residents under the age of 65 included within the study who meet the criteria to reside in Stow Healthcare's services.

Many of the residents live with complex comorbidities including dementia or Parkinson's disease. Many are very frail, and some are receiving end of life care. Care homes with fewer falls are often those looking after residents with higher nursing needs, often nursed in bed and not as mobile as other residents. Homes supporting people living with dementia, who may still be very mobile, often experience notably more falls. It is worth noting that where residents' conditions mean they are at a high risk of falls in any event, caffeine may not be a dominant factor in their falls risk.

Analysis was based on records of falls collated in each home on a monthly basis. This relied on staff systematically recording falls using the correct form on their electronic systems, in order that a report could be extracted from the system. If a fall were simply recorded in a resident's daily 'progress notes', it would not be collated as part of this report. While a potential limitation of the research, these cases are thought to be very limited.

It is also worth noting that some falls associated with toileting may not always be accurately recorded as this information may not always be known unless voiced by a resident, or made obvious by their location such as falling in, or on the way to, the bathroom.

In terms of delimitations, it was decided to rule out some categories of falls, including 'rolls from bed' onto crash mats or slips from wheelchairs. This was because these were less likely to be associated with toileting, and more likely associated with an inability to control movement safely.

Before commencing the trial, Stow Healthcare carried out awareness-raising work across their homes to ensure people could make an informed decision about whether they wished to participate in the trial. Where residents did not have capacity to consent, discussions took place with their next of kin at resident and next of kin meetings.

Many homes choose to complete 'blind taste testing' and encouraged residents to try caffeinated and decaffeinated products to see (a) if they could 'taste the difference' and (b) whether even if they could taste the difference and preferred caffeinated drinks, they would choose to drink decaffeinated products when informed about the potential health benefits of switching to decaffeinated drinks.

Documented preferences were received for 63 residents who completed blind taste testing across four homes. From this, the following information was collated:

- Only 19% of residents were able to accurately tell whether a drink contained caffeine or not. This is significantly less than in the original 'Taste the Difference Challenge', however, it is worth noting that taste buds tend to diminish with factors such as age and dementia.<sup>12</sup>
- 22% of residents said they would prefer to continue to drink caffeinated drinks.
- 33% of residents said they would prefer to drink decaffeinated product.
- 46% of residents said they had no preference.
- 3% gave multiple answers (decaffeinated and no preference)
- 43% said they would switch to decaffeinated products having been told of the potential benefits.

Blind taste testing form, modified from UHL original

Promotional information such as posters, drinks coasters and easy-read one-pagers were circulated to residents to support awareness and ensure informed decision-making regarding participation. Overall, residents were positive about the changes; one commented that they "always had decaf at home," whilst another said she would like to try it as "it might help my continence".

[12] Alzheimer's Association (2024), Daily Care: Food and Eating, <https://www.alz.org/help-support/caregiving/daily-care/food-eating>

Falls data was collated at the end of each complete month for the six-month duration of the project. Falls data was also retrospectively collated for the four previous months to serve as a baseline.

Falls data was collated automatically using electronic report systems across the homes. One system is used across seven homes, with a different system being used as a pilot in the eighth home. Both systems allowed the same data to be collected.

It is worth noting that there is a degree of interpretation involved in recording data relating to falls associated with toileting, as set out in the delimitations. Falls were documented as being associated with using the toilet if the falls report noted that the resident said they had fallen whilst trying to use the toilet if they were found to have fallen in their bathroom, or if they were found whilst clearly en route to the bathroom.

Homes were asked to document the percentage of residents choosing to drink decaffeinated drinks and to advise of any individuals who chose to drink caffeinated drinks. Overall, 89% of residents chose to take part at the outset of the study. By the end of the study, this had risen to 92%. Reasons for this may have included people being influenced by those they live with, and new residents joining homes who were more willing to participate.

The products used in the first three months of the research project were sponsored by Tetley (decaffeinated tea) and NESCAFÉ B2B by Nestlé Professional (decaffeinated coffee).

# Results

## The impact of decaffeination on falls relating to going to the toilet

Before analysis, data relating to three residents were removed from the sample. These residents were deemed to be ‘outliers’ due to a history of falls for reasons unlikely to be impacted by decaffeination, including alcohol use, mental health and repeated failure to engage with recommendations of the local falls team to reduce the likelihood of them falling.

The data from the trial, with outliers removed, is outlined in Table 1.

	Month (2023)	Avg. occupancy	Total falls	Falls (% of avg. occupancy)	Toileting falls	Toileting falls (% of total falls)	Toileting falls (% of avg. occupancy)
Pre-trial	February	315.95	51	16.14%	12	23.53%	3.80%
	March	321.03	57	17.76%	17	29.82%	5.30%
	April	298.10	53	17.78%	19	35.85%	6.37%
	May	298.62	62	20.76%	15	24.19%	5.02%
	Avg.	308.43	55.75	18.08%	15.75	28.25%	5.11%
Trial period	June	301.23	59	19.59%	13	22.03%	4.32%
	July	301.62	59	19.56%	15	25.42%	4.97%
	August	291.46	39	13.38%	5	12.82%	1.72%
	September	286.14	47	16.43%	12	25.53%	4.19%
	October	297.36	46	15.47%	7	15.22%	2.35%
	November	292.11	45	15.41%	7	15.56%	2.40%
	Avg.	294.99	49.17	16.67%	9.83	20.00%	3.33%

Table 1: Decaffeination trial results

As outlined in Table 1, the data is segmented into the pre-trial period (February – May 2023) and the trial period (June – November 2023). The pre-trial period is prior to decaffeinated products being implemented as the default option. Average figures from this period are used as the baseline against which the figures from the trial period are measured. The decaffeination initiative began in June 2023, running for six months until November 2023. Again, average figures from this period are taken to evaluate the impact of decaffeination on falls relating to toileting.

Figure 1 outlines the total number of falls related to using the toilet observed across the eight homes between February – November 2023.

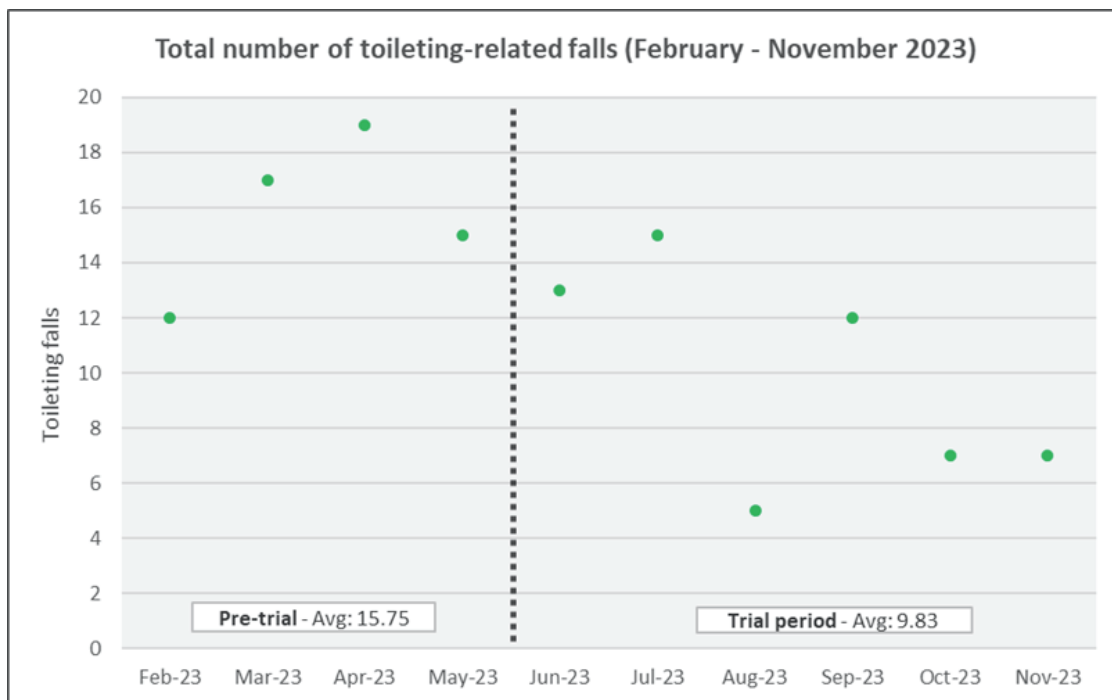


Figure 1: Total number of toileting-related falls (February – November 2023)

Prior to the rolling out of decaffeinated products as the default option, there were an average of 15.75 toileting-related falls per month across Stow Healthcare’s eight homes, ranging from 12 to 19 during the four-month period. During the trial period, this fell to an average of 9.83 toileting-related falls per month, ranging from a high of 15 in July 2023 to a low of five in August 2023. This drop represents a 37.59% reduction in toileting-related falls following the implementation of decaffeinated drinks as the default option. These figures, however, fail to account for changes in average occupancy levels, which ranged from 286.14 to 321.03 between February – November 2023. Figure 2 outlines toileting-related falls as a proportion of average occupancy over that period.

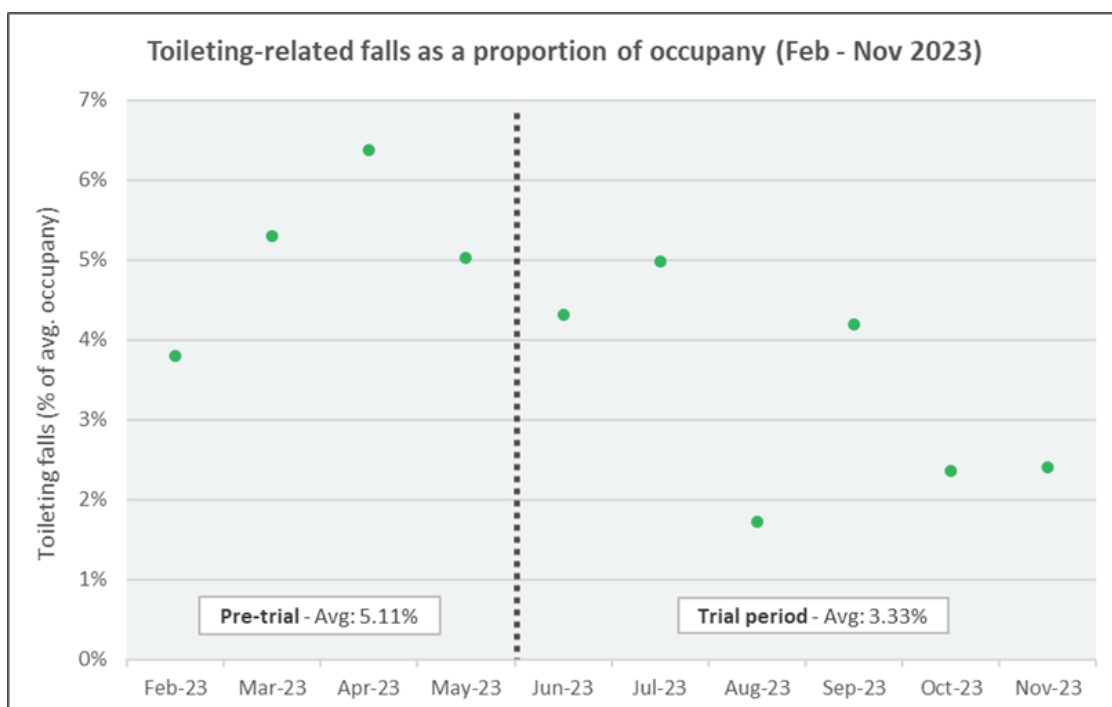


Figure 2: Toileting-related falls as a proportion of occupancy (Feb - Nov 2023)

Pre-trial, toileting-related falls as a proportion of average occupancy was 5.11% – meaning there was roughly one toileting-related fall for every 19.5 residents, each month. This ranged from a low of 3.80% in February 2023 to a high of 6.37% in April 2023.

During the trial period, this fell to 3.33% – one toileting-related fall for every 30 residents, each month. This ranged from a low of 1.72% in August 2023 to a high of 4.97% in July 2023.

The drop from an average of 5.11% pre-trial to 3.33% during the trial represents a 34.72% reduction in falls relating to toileting, as a proportion of occupancy.

Figure 3 outlines how toileting-related falls, as a proportion of total falls, changed over the course of the decaffeination trial.

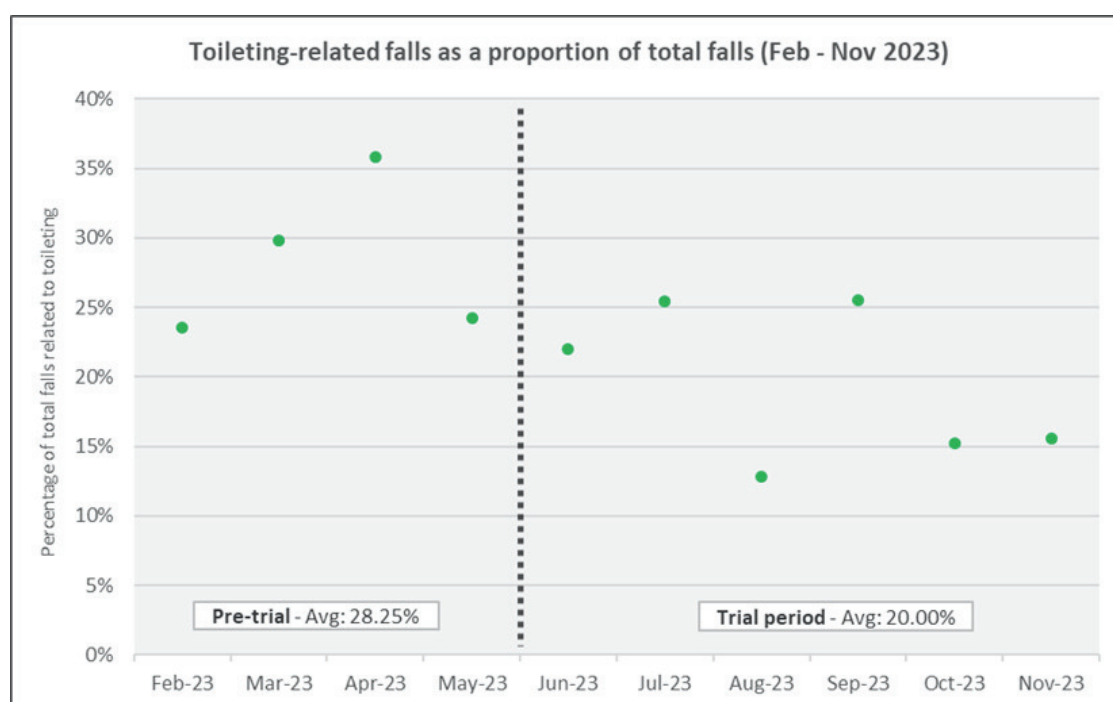


Figure 3: Toileting-related falls as a proportion of total falls (Feb - Nov 2023)

Before the decaffeination trial, an average of 28.25% of total falls related to toileting – just under 3-in-10 falls that took place were associated with a resident going to the toilet. This ranged from 23.53–35.85% between February – May 2023.

After the implementation of decaffeinated hot drinks, the proportion of total falls related to toileting fell to 20.00% – 2-in-10 falls that took place were associated with a resident going to the toilet. This ranged from 12.82–25.53% between June – November 2023.

The drop from 28.25% to 20.00% represents a 29.21% reduction in the falls relating to toileting, as a proportion of total falls, following the implementation of decaffeinated hot drinks as the default option.



## Resident feedback

Stow Healthcare residents set out a mixture of views on their experiences with the decaffeination trial. Feedback was generally very positive, with many of those participating not noticing any difference in taste between caffeinated and decaffeination hot drinks. For some residents, it was not immediately clear that health benefits were striking, but there was recognition that these benefits may be subtle. Even where direct health benefits were not immediately obvious, residents were generally happy to continue with the trial.

*"I grew up in India and was used to drinking strong tea – it was Brooke Bond. Tea was cheap and part of my culture. These days I drink much less tea – just one cup now in the morning. I always had normal tea but have switched to decaffeinated and can't tell the difference. As long as it's very hot, that's all I want!" – Barbara (resident)*

*"I'm drinking decaffeinated and haven't noticed any difference at all in the taste – I've probably got used to it. I haven't had a fall for two or three months and I'm happy to stay drinking decaf. I'd like to think it's working." – Russell (resident)*

*"Since being on decaf, once I go to sleep, I sleep right through until about 5am. I used to wake frequently through the night to go to the loo. Having an undisturbed night has made a huge difference to me, as I am no longer so tired during the day." – Robert (resident)*

*"I like both, I can tell the difference. I like being part of the cause!" – Gerald (resident)*

*"I like the taste, but I still get up in the night to use the toilet, I haven't noticed any changes really." – Josie (resident)*



## Staff feedback

Staff members across Stow Healthcare's services showed real enthusiasm for the project. Indeed, in the spirit of the trial, many chose to switch to decaf themselves.

*"It has been great to see the difference that decaf appears to have made to some of our residents. I know that some of them feel proud to be part of this research. I think decaf has helped peoples' urinary continence – one person just has a pad for reassurance now as they know they can get to the loo on time. I never drank coffee personally as it made me shake. However, I didn't realise how much caffeine tea has in it and since changing to decaf as part of this project, I have found that I sleep better, and my concentration levels seem better as I do not have highs and lows following a caffeinated drink."*

*– Michelle (staff member)*

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## Discussion

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This investigation into decaffeination and toileting-related falls in a care home setting is the first of its kind. De Pooter–Stijnman et al’s 2018 study in the Netherlands looked at the effects of caffeine on sleep and behavioural issues amongst nursing home residents with dementia, identifying a significant improvement in sleep and apathy after eliminating caffeine in the afternoon and evening.<sup>13</sup> In terms of looking specifically at toileting-related falls, however, this investigation drew sole inspiration from UHL’s ‘Taste the Difference’ challenge, exploring the impact of decaffeination on toileting-related falls in a hospital setting.

The results of the decaffeination trial across Stow Healthcare’s care homes appear to corroborate the findings of the ‘Taste the Difference Challenge’; the reduction in toileting-related falls in the care home setting (34.72%) is comparable to, even slightly better than, the reduction observed in a hospital setting (30%). This is an encouraging finding, particularly considering some of the mitigating factors at play.

Firstly, while many hospital patients can be expected to see their overall health improve over time, and therefore their likelihood of falling decreases, the overall health of care home residents tends to deteriorate over time, often in line with degenerative conditions such as dementia. As these conditions progress, the individual may become more frail and more likely to fall, irrespective of caffeine intake. Most care home residents live with complex health needs and conditions that make them more prone to falls, and where the impact of caffeine removal may be negligible compared to the impact of their dementia, Parkinson’s or unsteady gait, for example. While three outliers were removed from the data due to a history of falls for reasons unlikely to be impacted by decaffeination, there were undoubtedly mitigating factors at play across the residents who took part in the trial.

Additionally, ensuite facilities are common in care homes and residents tend to travel a short distance to reach the toilet. This is in contrast to a hospital ward, where patients are generally more mobile and would often have to travel a further distance to reach a toilet. With a greater distance to travel, hospital patients may be at greater risk of falling, particularly if needing to use the toilet urgently.

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[13] L. M. M. de Pooter–Stijnman, L.M.M, Vrijkotte, S., Smalbrugge, M., (2018), Effect of caffeine on sleep and behaviour in nursing home residents with dementia, [https://link.springer.com/article/10.1007/s41999-018-0115-6#auth-L\\_M\\_M\\_-Pooter\\_Stijnman-Aff1](https://link.springer.com/article/10.1007/s41999-018-0115-6#auth-L_M_M_-Pooter_Stijnman-Aff1)

It is also worth noting that, over the course of the trial, the resident cohort fluctuated in number due to normal seasonal demand for care, which tends to peak in winter. Numbers of falls may have been impacted by a new resident moving into the home, or by a resident whose falls are an indicator of a severe decline in their health, and which may represent the terminal phase of their life. Fluctuations in occupancy were controlled by analysing toileting-related falls as a proportion of average occupancy each month, however, the fact that the cohort itself changed over the course of the trial is worth bearing in mind.

Nonetheless, this trial appears to provide encouraging evidence that by offering decaffeinated tea and coffee as standard to care home residents (always after providing choice and explaining health benefits to residents or those who have the authority to make healthcare decisions on their behalf), residents may experience fewer falls associated with going to the toilet.

While the results are encouraging, the sample size of this trial was relatively small. Consideration should be lent to conducting larger-scale research into the subject, both for the sake of resident wellbeing and the cost of falls to the NHS. Fragility fractures cost the NHS £4.4bn per year, and, given that a substantial proportion of falls relate to toileting, there is certainly scope for considerable savings across the system if the findings are ratified and scaled up.

Following the completion of the trial, Stow Healthcare is planning to continue to offer decaffeinated hot drinks as standard, alongside providing information about the possible health benefits of a switch to decaffeinated products. Residents will still be able to access caffeinated drinks if that is their preference. Stow Healthcare will now be working to promote the findings of their research, both amongst those who use their services and those who work in them. Ensuring staff are well informed about the reasons for promoting decaffeinated products is key to the success of the project in Stow Healthcare's view, both in terms of initial project set-up and ongoing changes to routines.

There are a number of potential areas for further study that fell outside of the scope of this research. This may include exploring other potential benefits of decaffeination in a care home setting, including improved sleep; reduced behaviours that may challenge in people living with dementia;<sup>14</sup> reduced tachycardia and palpitations; reduced pad dependency and use; dehydration and headaches; indigestion; and, lowered risk of osteoporosis due to the effect of caffeine on calcium absorption. With appropriate controls in place, a study exploring the impact of decaffeination on total falls could also help accurately quantify the potential benefit of decaffeination to the NHS in terms of cost savings.

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## Conclusion

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Care England and Stow Healthcare, in partnership with UHL, undertook an investigation into the impact of providing decaffeinated hot drinks as the default option on falls related to toileting in a care home setting. The study followed the 'Taste the Difference Challenge,' an initiative by UHL which observed a 30% reduction in toileting-related falls after making decaf the default option in a hospital setting, and a wide range of literature suggesting a strong correlation between caffeine intake and lower urinary tract symptoms.

The trial took place across eight residential care homes between June – November 2023, with an average of 89% (rising to 92%) of roughly 350 residents consuming predominantly decaffeinated tea and coffee. The results were encouraging – overall, a 34.72% reduction in falls relating to going to the toilet was observed compared to the pre-trial period. Consideration should be lent to a larger-scale study to corroborate the findings and further explore the potential of decaffeinated hot drinks to improve the wellbeing of care home residents and make savings to the NHS.

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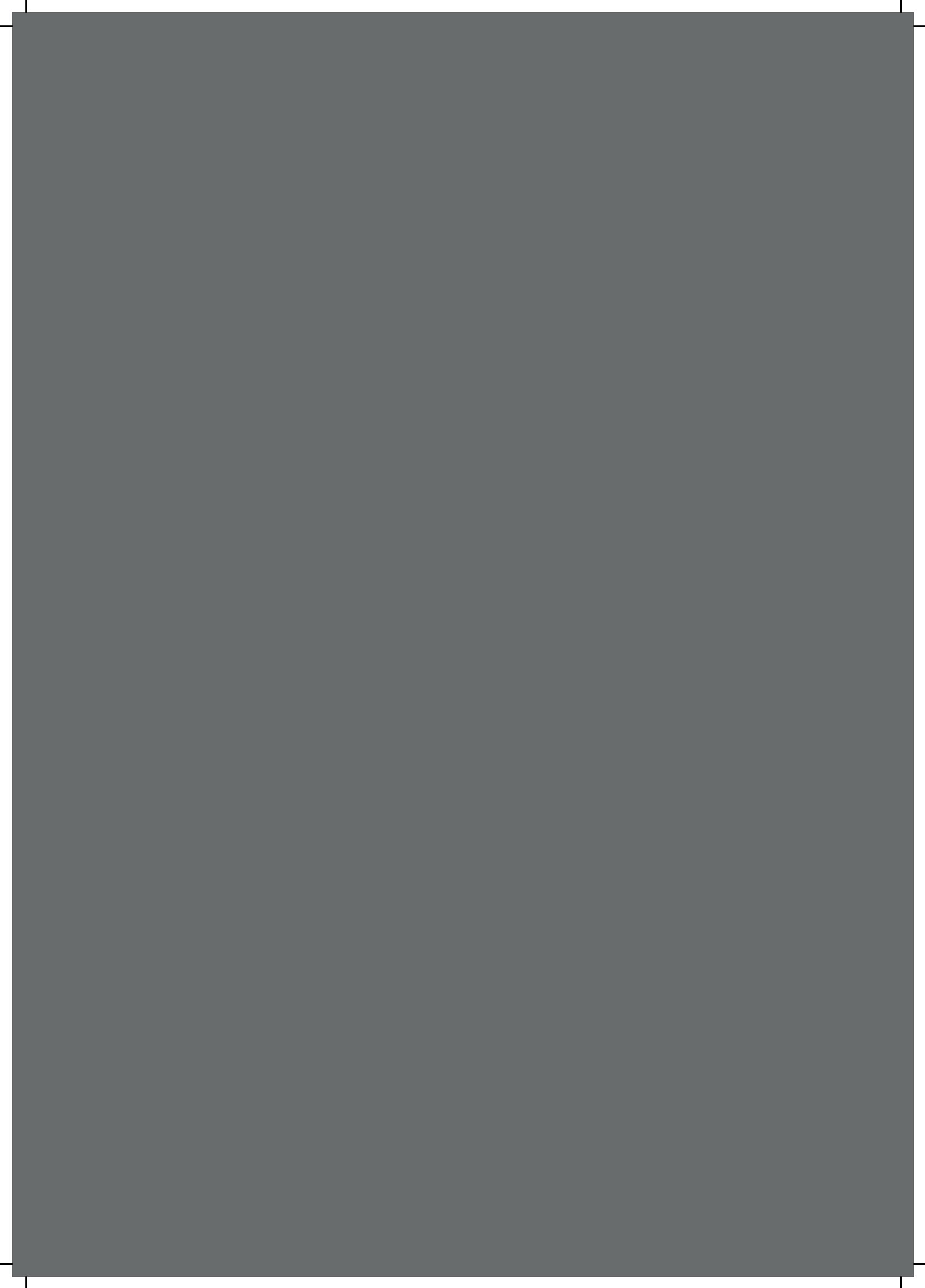
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