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**Impact of alcohol-based hand sanitizers on acute diarrhoea
acquired in general practitioner's waiting rooms of offices: A
prospective randomized study.**

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SERMENT D'HIPPOCRATE

En présence des Maîtres de cette Faculté,
de mes chers condisciples
et selon la tradition d'Hippocrate,
je promets et je jure d'être fidèle aux lois de l'honneur
et de la probité dans l'exercice de la Médecine.

Je donnerai mes soins gratuits à l'indigent,
et n'exigerai jamais un salaire au-dessus de mon travail.

Admis dans l'intérieur des maisons, mes yeux
ne verront pas ce qui s'y passe, ma langue taira
les secrets qui me seront confiés et mon état ne servira
pas
à corrompre les mœurs ni à favoriser le crime.

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je rendrai à leurs enfants
l'instruction que j'ai reçue de leurs pères.

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Impact of alcohol-based hand sanitizers on acute diarrhoea acquired in general practitioner's (GP's) waiting rooms of offices: A prospective randomized study.

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Impact of alcohol-based hand sanitizers on acute diarrhoea acquired in general practitioner's (GP's) waiting rooms of offices: A prospective randomized study.

SUMMARY

Introduction. The use of non-antibacterial soap with hand hygiene education interventions is efficacious for preventing gastrointestinal infections. The aim of this study was to estimate the impact of an alcohol-based sanitizer (HAS) available on acute diarrhoea occurrence acquired in GPs' waiting rooms and we studied the patients' acceptability of this prevention measure.

Methods. A prospective randomized study was conducted in France over a 9-week period, throughout the 2011 seasonal gastroenteritis period.

Results. Twenty-eight GPs' offices were randomly assigned to be equipped with a HAS (interventional group) or to continue their daily activities without an HAS (control group).

One hundred and eleven acute diarrhoea cases had a previous visit over 10 days before the including visit during the study period: 58 of 389 (14.9%) in the interventional group and 53 of 389 (13.6%) in the control group ($p = 0.611$). If only 46.6% of patients used an HAS, 80.8% of patients claimed the measure to be useful.

Conclusion. This interventional study, based on a not-compulsory prevention measure to patients, failed to demonstrate a significant benefit to reduce acquired acute diarrhoea.

Key words: acute diarrhoea, office, general practitioners, alcohol-based solution, interventional study

INTRODUCTION

Viral pathogens are the most common cause of gastroenteritis in industrialized countries [1,2]. Mead et al. have estimated that of 38.6 million annual cases of gastroenteritis in the United States, 30.8 million (80 %) are the result of viral infections [3]. Enteric viral pathogens include astrovirus, adenovirus and sapovirus, but most viral gastroenteritis infections are caused by rotavirus (A) in children and norovirus in adults (formerly Norwalk-like viruses) [1-9]. In France, an acute diarrhoea epidemic is observed each winter by general practitioners of the French Sentinelles network [10], and the number of medical consultations for acute diarrhoea is estimated at around 3100000 [11].

The use of non-antibacterial soap with hand hygiene education interventions is efficacious for preventing gastrointestinal infections [12]. Alcohol-based hand sanitizers are also an effective alternative to hand washing and have the advantage of not requiring access to a sink, together with being rapidly bactericidal as well as virucidal for some gastrointestinal pathogens [13]. In 2002, the Centers for Disease Control and Prevention emphasized the role of alcohol-based hand sanitizers as a part of a comprehensive strategy to improve hand hygiene in health care settings [14]. Alcohol-based hand gels are considerably more convenient than traditional sink-based hand hygiene. Use of these gels is now widely advocated in health care settings because studies have demonstrated virucidal activity and reduced antimicrobial counts on hands of health care workers who use these agents [14-17]. Alcohol-based hand sanitizers are also associated with reduced illness and absenteeism in schools and at work [18-23]. Finally, these hand gels have been associated with improved compliance, likely as a result of the ease of use [24-26].

The prevention of transmission of infection in a practitioner's office is an important component of patient care and is of concern to health care providers, patients and parents [27]. There is a large body of data on infections acquired by people admitted to hospital, and there

are established infection control protocols to reduce the risk of infection in hospitals [28-31]. However, the risk of acquiring infection in ambulatory care settings, and the efficacy and feasibility of infection control measures in these settings have been stated [27] but, to date, never proved. Published recommendations specific to general practitioners' offices are sparse, imprecise in some areas and may be difficult to implement [4-8,32].

The aim of the study was to estimate whether the alcohol-based hand sanitizer provided to patients in a GP's waiting room has an impact on reducing the risk of contracting acute diarrhoea associated with care in GPs' offices. Secondary issues were to assess the social and economic consequences of acute diarrhoeas and to estimate the acceptability of control measures by persons visiting GPs' offices.

METHODS

1-Design

We performed a randomized, epidemiological, interventional, prospective study, between January and March 2011.

2-Participants

General practitioners' recruitment began in September 2010, and the study was closed to new enrolment in November 2010. GPs' offices were recruited on the basis of voluntary participation among private clinics with more than one GP belonging to the French Sentinelles network of two French regions (Centre and Ile-de-France), and GPs' partners of Orléans Hospital Centre. A total of 46 GPs were randomized in two groups: interventional group and control group.

Characteristics of GPs' offices were collected using a standardized questionnaire (**Annex 1**).

Distribution of GPs in each group of the study was randomized with stratification of these characteristics. We excluded one office already using control measures.

The French Sentinelles network provided the epidemic level of acute diarrhoea each week.

When the threshold was reached (2011 week 1), the study was launched. Inclusions of acute diarrhoea cases began two weeks later in order to consider the acute diarrhoea incubation period. The study was closed on 19 March 2011 after nine weeks of inclusions when the acute diarrhoea epidemic was ending.

3-Intervention

In GPs' offices of the interventional group, a device containing a 500-mL virucidal hydroalcoholic solution (HAS) (AniosGel85, Anios Corp. Lille Hellemes, France; active ingredient: 76% ethyl alcohol [isopropanolol 2.5%]) was provided at the entrance of the GP's office and in the waiting room. Information was given on how to properly rub their hands with the alcohol-hand based sanitizer (**Annex 2**). Alcohol-hand based sanitizer use was proposed to each person who came to the office. Two posters (**Annex 3**) were positioned at the office entrance and inside the waiting room next to the bottle. They explained the study to patients, encouraged them toward a systematic use of the alcohol-hand based sanitizer, and demonstrated how to properly disinfect their hands. Application involved pressing the device to obtain a quantity of solution in the hollow of the hand and then rubbing both hands together, then crossing fingers so as to spread the product evenly over the entire cutaneous surface of both hands. The empty containers had to be changed by the GP or his secretary. Six 75-mL individual bottles of alcohol hand-based sanitizer were provided to GPs and secretaries for personal use.

GPs' offices of the control group were not equipped with the product and functioned as usual without using an alcohol hand-based sanitizer in the waiting room. No additional information was given.

4-Data collection and acute diarrhoea definitions

Each GP was asked to include eight patients a week. They had to include the first two patients presenting with acute diarrhoea symptoms each day, four days a week. For each acute diarrhoea case included, the GP should: explain the study to the patient, obtain the patient's consent, and complete with him a medical questionnaire (**Annex 4**), with demographical and clinical data.

Acute diarrhoea was defined as recent acute diarrhoea (at least three daily watery or nearly so stools, dating less than fourteen days), motivating consultation.

An acute diarrhoea case, aged more than three years, was included when this consultation was the first one for this reason. We excluded children aged three years and less, because of the part of no-viral acute diarrhoea.

An acute diarrhoea case with associated care was an acute diarrhoea case that had a previous visit over ten days before the including consultation.

5-Acceptability survey

Concerning the acceptability of barrier measures by patients, a cross-sectional survey was performed in some interventional offices. On one day, a practitioner or his secretary gave an acceptability questionnaire (**Annex 5**) to all persons frequenting the GP's offices this day.

6-Outcome

The main judgment criterion was the proportion of previous visits in the last ten days among all acute diarrhoea cases included in the interventional group and control group.

Secondary outcomes were absenteeism and the working day lost by adults and measure judgments by patients and GPs.

7-Statistical analyses

Among 35 GPs' offices that were randomly assigned, only 28 offices were included in the analyses, which were conducted on an intention-to-treat basis. Baseline demographic characteristics, school absenteeism, the working day lost by adults and measure judgments by patients and GPs in the control and interventional groups were analysed by descriptive analysis. The secondary AD cases occurrence in each office was modelled by a Poisson distribution. A generalized model (SAS© GENMOD model) was used to compare the proportion of acute diarrhoea cases having a previous visit to the GP's office ten days before the including visit between the control and intervention groups, accounting for correlations between acute diarrhoea cases within a GP's office. We adjusted for demographic variables. Statistical analyses were performed using SAS version 9.2 (SAS Institute, Cary, NC). All statistical analyses were conducted at the 5% level of significance.

RESULTS

Forty-six general practitioners (GP) took part in the study: thirty-six GPs of twenty-five offices in the French region “Centre” and ten GPs of ten offices in the French region “Ile-de-France”.

Eight hundred and twenty-four acute diarrhoea cases were included in the study by forty GPs. After excluding non-conformed cases, 778 acute diarrhoea cases were included in the study: 389 in the interventional group and 389 in the control group (**Figure 1**).

Table 1 shows gender, age and medical characteristics of acute diarrhoea cases included in both groups (**Table 1**).

1-Impact of alcohol hand-based sanitizer use on acute diarrhoea occurrence in GPs’ offices

Among acute diarrhoea cases included in this study, 14.3 % (111/778) of them went to the GP’ in the ten days before the including visit. There were 14.9 % (58/389) in the interventional group and 13.6 % (53/389) in the control group ($p=0.611$).

Among acute diarrhoea cases included in this study and without possible identified sources of infection, 13.3 % (49/368) of them went to the GP in the ten days before the including visit. There were 14.7 % (22/150) in the interventional group and 12.4 % (27/218) in the control group ($p=0.535$).

Among acute diarrhoea cases aged more than 30 years included in this study, 19.1 % (59/309) of them went to the GP in the ten days before the including visit. There were 17.1 % (26/152) in the interventional group and 21.0 % (33/157) in the control group (i.e. 19 % reduction, $p=0.253$).

2-Social and economic impact of acute diarrhoea episode

Among acute diarrhoea cases included in the study, 45.9 % (336/729) took a day off to consult the general practitioner. After medical consultation, 53.7 % (410/761) had a period of days off and 25.2 % (194/768) stayed away from school. Almost all cases (96.0 %, 737/765) had a medical prescription at the end of the consultation. No cases went to hospital (0/780).

Among acute diarrhoea cases with days off, the cause concerned 79.5 % (326/410) of patients themselves and 20.5 % (84/410) to keep on children. The median length of the days off period (n=300) was 2 days (range: 0 to 6 days).

The median length of patient school absenteeism (n=194) was 2 days (range: 1 to 6 days).

3-Use of alcohol hand-based sanitizer

Among the replied people of the transversal survey, 46.6 % used an alcohol hand-based sanitizer. Among the people who did not use an alcohol hand-based sanitizer, the main reason was no visualization of an alcohol hand-based sanitizer and posters (23.4 %) Other reasons mentioned were a lack of the need to use an alcohol hand-based sanitizer (10.3 %), being slow to react (9.1 %), possession of own alcohol hand-based sanitizer (6.9 %), previous hand washing (6.9 %), and a lack of time (0.6 %).

4-Patient acceptability on control measure

Sixty-eight point six per cent acquainted oneself with the proposed measure. 11 % of people who used an alcohol hand-based sanitizer and half of people who did not use an alcohol hand-based sanitizer acquainted oneself with the control measure. Most of the people (80.8 %) considered this measure to be useful (**Table 2**).

Thirty-eight point seven per cent (135/349) considered posters to be attractive, 64.5 % (225/349) comprehensible and 62.2 % (217/349) well located.

DISCUSSION

We report the results of the first randomized, controlled study to assess the impact of an alcohol hand-based sanitizer measure in a waiting room of a GP's office to reduce the acute diarrhoea incidence potentially acquired in an outpatient health care environment. This intervention failed significantly to reduce the transmission of acute diarrhoea acquired in GPs' offices. However, a possible effect was expected on acute diarrhoea cases aged more than 30 years.

In 2002, the Centers for Disease Control and Prevention emphasized the role of alcohol-based hand sanitizers as a part of a comprehensive strategy to improve hand hygiene in health care settings [14]. In 2008, the Canadian Paediatric Society reported that transmission of infections common in the community, such as gastrointestinal infections, almost certainly occurs in practitioners' offices but has not been reported, and thus recommended waterless hand hygiene products in the waiting room of paediatric offices [27]. However, only one published study has assessed the risk of infection after a visit to a paediatric office and has concluded that there was no increased risk of infection [33].

Waterless hand hygiene agents reduce the time required to perform hand hygiene and provide a good alternative to hand washing when access to a sink is not convenient [24-26]. These characteristics may be especially advantageous for people frequenting the GP's office, where numerous patients are carrying infectious agents (e.g. respiratory disease or gastrointestinal infection). Hand sanitizers are affordable and widely available; nearly 50 % of people frequenting GPs' offices in our survey and 100% of GPs in our study reported ever having used them.

We were somewhat surprised by the failure of the intervention to reduce the occurrence of secondary acute diarrhoea acquired in a GP's office. This was unexpected, given that alcohol-

based antiseptics containing 60% to 80% weight per volume have been shown to be effective against a range of viruses and bacteria, including agents that cause diarrhoea infections [9]. Previous studies have suggested that rotavirus is not removed effectively by routine hand washing with soap and water, whereas alcohol reliably kills the virus [34-36]. Noroviruses may be killed less efficiently by alcohol-based products [37], although fewer data exist regarding the issue because noroviruses cannot be grown easily in culture systems [38]. The intervention could lead to a reduction in acute diarrhoea acquired in a GP's office in adults aged more than 30 years. However, this reduction, based on 309 cases, was not statistically significant and requires confirmation in a larger study. Our results are consistent with some data showing that there was little evidence for an additional impact of new products, such as alcohol based-hand sanitizers or antibacterial soaps, compared to non-antibacterial soaps, for reducing either gastrointestinal infectious illness symptoms [12]. Our results may be related to the fact that our intervention was not compulsory in order to test a preventive measure in a real situation, which could be reproducible, if this measure would be spread to all GPs' offices. We only suggested alcohol hand-based sanitizer use by posters at the entrance of waiting rooms with the alcohol hand-based sanitizer bottle visible for use. This suggests several interrogations: first, the real impact of alcohol hand-based sanitizers in the waiting rooms and the acceptability; second, the real place of a GP's office in the gastrointestinal infectious agents' transmission; third, the adherence to infectious control measures by French people.

First, previous studies showed efficacy of alcohol hand-based sanitizer use to reduce the gastroenteritis incidence. In schools, the alcohol hand-based sanitizer allowed reducing 40 % gastroenteritis cases among pupils, where measure involvement was high (close to 100 %) [18]. In another interventional study in public administration, the alcohol hand-based sanitizer reduced 50 % of acute diarrhoea cases [19]. Staff involvement was also high: close to 80 %.

In our study, only 46.6 % of people used an alcohol hand-based sanitizer at the time of their medical visit to a GP's office (result given by the acceptability survey). Small people involvement in our study could explain the limited effect of the alcohol hand-based sanitizer on acute diarrhoea in a care environment. The alcohol hand-based sanitizer used in this study was the same alcohol hand-based sanitizer as in the school study [18].

Second, the real place of a GP's office in acute diarrhoea transmission is not clearly established. If people spend time in the waiting room of a GP's office, the period exceeded is rarely two hours, whereas people spend a day in work or school, which represented eight hours per day, five days per week. Third, the acceptability survey showed a poor usage of the alcohol hand-based sanitizer. Limited involvement of French people in control measures is suspected. Information on measures failed in this study and could explain this low compliance. However, our study revealed high involvement of general practitioners in alcohol hand-based sanitizer professional use. Most of them use it between all patients and all of them using an alcohol hand-based sanitizer has been proposed. General practitioners represent an awareness population in an infectious notion and know hand transmission of infectious diseases.

This study has several limitations. The number of cases expected was not reached in this study. Various factors could explain it. Our initial hypothesis was based on an epidemic period similar to previous years. The acute diarrhoea epidemic 2010-2011 was unusually short and of a small range, which reduced the data collection period, which could introduce a bias linked to low virus circulation. The study is thus based on the end of an acute diarrhoea epidemic, with a low acute diarrhoea incidence. Another factor was characteristics of the acute diarrhoea epidemic during 2010-2011. This year, general practitioners noted a high frequency of vomiting in gastroenteritis without diarrhoea, which did not fit our case definition and thus reduced the number of cases included. Another obstacle to interpret

alcohol hand-based sanitizer efficiency was the little use by patients, as our study was based on free access to an alcohol hand-based sanitizer.

CONCLUSION

This study did not show a positive impact of alcohol hand-based sanitizer use on the acute diarrhoea transmission acquired in a GP's office or did not demonstrate a heavy weight of GP's offices in the acute diarrhoea transmission. However, similar studies conducted during an acute phase of an epidemic should be carried out in order to confirm these results.

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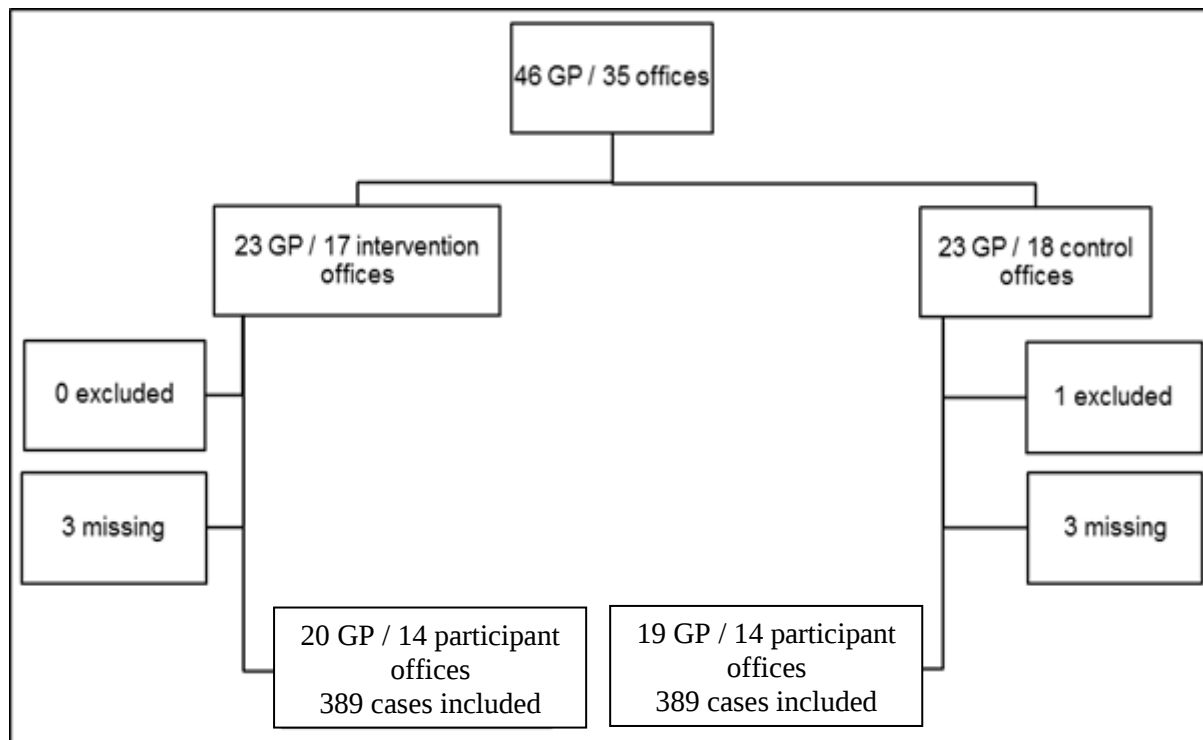
FIGURES, TABLES AND ANNEXES**Figure 1:** Participant flow diagram.

Table 1: Baseline demographic characteristics of acute diarrhoea cases.

Variables	Total	Interventional group	Control group
Median age	n=702	n=342	n=360
	28 years	28 years	27, years
	(range: 3 to 89 years)	(range: 3 to 88 years)	(range: 3 to 89 years)
Sex	n=777	n=388	n=389
Female	52.6 % (409)	54.1 % (210)	51.2 % (199)
Comorbidity*	n=757	n=377	n=380
	9.8 % (74)	11.4 % (43)	8.2 % (31)
Identified source of infection	n=778	n=389	n=389
	52.8 % (411)	61.7 % (240)	44.0 % (171)

* comorbidity: diabetes, congestive heart or respiratory failure, asthma, immunodeficiency, active neoplasia, systemic disease or inflammatory pathology under immunosuppressant included corticotherapy.

Table 2: Patient opinion on alcohol hand based sanitizer available measure in general practitioner' offices.

Variables	Total (n=349)	Patient who used HAS (n=162)	Patient who not used HAS (n=177)
This measure is			
Useful	80.8 % (282)	89.5 % (145)	73.5 % (130)
Without opinion	14.9 % (52)	8.6 % (14)	20.3 % (36)
Restrictive	4.6 % (16)	4.3 % (7)	5.1 % (9)
Without opinion	9.7 % (34)	3.7 % (6)	14.7 % (26)
This measure inspire			
More confidence on the GP's office quality	57.6 % (201)	58.0 % (94)	57.1 % (101)
Less confidence on the GP's office quality	2.3 % (8)	2.5 % (4)	2.3 % (4)
No change my estimate on the office quality	36.4 % (127)	40.1 % (65)	33.3 % (59)
Without opinion	14.6 % (51)	11.1 % (18)	18.1 % (32)

Annex 1: Characteristics of GPs' offices questionnaire.

							
Date : ____/____/____		Identification du médecin : _____					
Enquête APIC - CARACTERISTIQUES DU CABINET MEDICAL							
<i>Renseigner ou cocher les cases correspondantes</i>							
Caractéristiques de votre cabinet médical							
Votre cabinet dispose-t-il d'une secrétaire présente sur place?				☐ OUI ☐ NON			
Combien de médecins exercent dans votre cabinet ?				____ médecin(s)			
Combien de salle d'attente comprend le cabinet médical ?				____ salle(s) d'attente			
Combien de salle de consultation comprend le cabinet médical ?				____ salle(s) de consultation			
Mettez-vous habituellement à disposition de votre clientèle une solution hydro-alcoolique en salle d'attente ?				☐ OUI ☐ NON			
Utilisez-vous l'eau de Javel pour désinfecter votre salle d'attente plus d'une fois par semaine ?				☐ OUI ☐ NON			
Réalisez-vous un tri des patients infectieux et non infectieux dans plusieurs salles d'attente ?				☐ OUI ☐ NON			
Réseau Sentinelles Centre - Etude APIC Centre hospitalier régional d'Orléans – 1 rue Porte Madeleine – BP 2439 – 45032 ORLEANS Cedex 1 Tél : 02.38.74.40.05 - Fax : 02.76.34.16.38 Courriel : cecile.saugeon@u707.jussieu.fr ou benoitfourmier@hotmail.fr http://www.sentiweb.fr							

Annex 2: Poster explaining how to properly rub the hands with the alcohol-hand based sanitizer.




Des gestes simples pour limiter la transmission des germes

- ✓ Une solution hydro-alcoolique est mise à votre disposition,
- ✓ Versez la solution dans votre main : 2 pressions,
- ✓ Frictionnez-vous les mains jusqu'à évaporation complète du produit.



Une étude est actuellement en cours dans le cabinet de votre médecin.
En y participant, vous apporterez votre aide à la recherche médicale.

Pour plus d'informations sur le réseau Sentinelles, consultez le site internet : <http://www.sentiweb.fr>








Annex 3: Poster positioned at the office entrance and inside the waiting room next to the bottle.



Sentinelles

Friction des mains pour tous



Servez-vous!



Annex 4: Medical questionnaire with demographical and clinical data.

Identification du médecin : _____









Enquête APIC - FICHE DE RECUEIL DES DONNEES

Patients atteints de diarrhée aiguë récente (au moins 3 selles liquides ou molles par jour datant de moins de 14 jours)

Renseigner ou cocher les cases correspondantes

	Cas n°1	Cas n°2	Cas n°3	Cas n°4
Date consultation	__/__/__	__/__/__	__/__/__	__/__/__
Age				
Sexe	☐ F ☐ M	☐ F ☐ M	☐ F ☐ M	☐ F ☐ M
Observations médicales				
Date de début des symptômes de GEA	__/__/__	__/__/__	__/__/__	__/__/__
Fréquentation de votre structure de soins dans les 10 jours précédents (<i>Si oui, dernière date</i>)	☐ OUI ☐ NON __/__/__	☐ OUI ☐ NON __/__/__	☐ OUI ☐ NON __/__/__	☐ OUI ☐ NON __/__/__
Si oui, motif de cette précédente consultation/visite	☐ Infectieux ☐ Gastroentérite ☐ Non infectieux ☐ Renouvellement d'ordonnance ☐ Accompagnant ☐ Autre	☐ Infectieux ☐ Gastroentérite ☐ Non infectieux ☐ Renouvellement d'ordonnance ☐ Accompagnant ☐ Autre	☐ Infectieux ☐ Gastroentérite ☐ Non infectieux ☐ Renouvellement d'ordonnance ☐ Accompagnant ☐ Autre	☐ Infectieux ☐ Gastroentérite ☐ Non infectieux ☐ Renouvellement d'ordonnance ☐ Accompagnant ☐ Autre
Si oui, le patient a-t-il utilisé la solution hydroalcoolique lors de cette précédente consultation/visite ?	☐ OUI ☐ NON	☐ OUI ☐ NON	☐ OUI ☐ NON	☐ OUI ☐ NON
Co-morbidités *	☐ OUI ☐ NON	☐ OUI ☐ NON	☐ OUI ☐ NON	☐ OUI ☐ NON
Notion de contagé dans les 10 jours précédents	☐ Familial ☐ Extrafamilial	☐ Familial ☐ Extrafamilial	☐ Familial ☐ Extrafamilial	☐ Familial ☐ Extrafamilial
Fréquentation d'une autre structure de soin dans les 10 jours précédents (médecin, kiné, dentiste...)	☐ OUI ☐ NON	☐ OUI ☐ NON	☐ OUI ☐ NON	☐ OUI ☐ NON
Conséquences				
RTT ou arrêt de travail (pour venir en consultation)	☐ OUI ☐ NON	☐ OUI ☐ NON	☐ OUI ☐ NON	☐ OUI ☐ NON
Arrêt de travail (patient : si le patient est un adulte ; enfant malade : si le patient est un enfant dont un des parents est arrêté)	☐ patient ☐ enfant malade ____ jours	☐ patient ☐ enfant malade ____ jours	☐ patient ☐ enfant malade ____ jours	☐ patient ☐ enfant malade ____ jours
Eviction scolaire/crèche	____ jours	____ jours	____ jours	____ jours
Prescriptions médicales	☐ OUI ☐ NON	☐ OUI ☐ NON	☐ OUI ☐ NON	☐ OUI ☐ NON
Renvoi vers l'hôpital	☐ OUI ☐ NON	☐ OUI ☐ NON	☐ OUI ☐ NON	☐ OUI ☐ NON

* co-morbidités : diabète, insuffisance cardiaque ou respiratoire, asthme, déficit immunitaire, neoplasie active, maladie de système ou pathologie inflammatoire sous immunosuppresseurs y compris corticothérapie

Annex 5: Acceptability questionnaire.

Date : ____/____/____ Identification du cabinet : _____	
Enquête APIC - FICHE D'ACCEPTABILITE DES MESURES BARRIERES Utilisation d'une solution hydroalcoolique par les patients à l'entrée de la salle d'attente du cabinet médical	
<i>Renseigner ou cocher les cases correspondantes</i>	
Age	
Sexe	☐ F ☐ M
Motif de la consultation ou de la visite ?	☐ Infectieux (rhume, grippe, angine...) ☐ Gastroentérite ☐ Non infectieux (vaccin, traumatisme...) ☐ Renouvellement d'ordonnance ☐ Accompagnant ☐ Autre
Mesures barrières	
Avez-vous noté dans ce cabinet que l'on vous demandait d'utiliser une solution désinfectante des mains avant d'entrer en salle d'attente ?	☐ OUI ☐ NON
Avez-vous utilisé cette solution désinfectante ?	☐ OUI ☐ NON
<i>Si non, pourquoi n'ai-je pas utilisé cette solution ?</i>	
Si vous êtes accompagnant d'un enfant (ou d'une personne âgée...), cette personne a-t-elle utilisé la solution désinfectante ?	☐ OUI ☐ NON
<i>Si non, pourquoi n'a-t-elle pas utilisé cette solution ?</i>	
Trouvez-vous cette mesure :	
- utile ?	☐ OUI ☐ NON ☐ Sans avis
Trouvez-vous cette mesure :	
- contraignante ?	☐ OUI ☐ NON ☐ Sans avis
Cette mesure vous donne-t-elle :	
- plus confiance dans la qualité du cabinet de votre médecin ?	☐ OUI ☐ NON
- moins confiance dans la qualité du cabinet de votre médecin ?	☐ OUI ☐ NON
- cela ne change pas votre appréciation	☐ OUI ☐ NON
- sans avis	☐ OUI ☐ NON
Pensez-vous que l'affichage soit :	
- attractif ?	☐ OUI ☐ NON ☐ Sans avis
- compréhensif ?	☐ OUI ☐ NON ☐ Sans avis
- bien situé ?	☐ OUI ☐ NON ☐ Sans avis
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FOURNIER Benoît

Thèse n°

35 pages – 2 tableaux – 1 figure – 5 annexes

Résumé :

Introduction. The use of non-antibacterial soap with hand hygiene education interventions is efficacious for preventing gastrointestinal infections. The aim of this study was to estimate the impact of an alcohol-based sanitizer (HAS) available on acute diarrhoea occurrence acquired in GPs' waiting rooms and we studied the patients' acceptability of this prevention measure.

Methods. A prospective randomized study was conducted in France over a 9-week period, throughout the 2011 seasonal gastroenteritis period.

Results. Twenty-eight GPs' offices were randomly assigned to be equipped with a HAS (interventional group) or to continue their daily activities without an HAS (control group). One hundred and eleven acute diarrhoea cases had a previous visit over 10 days before the including visit during the study period: 58 of 389 (14.9%) in the interventional group and 53 of 389 (13.6%) in the control group ($p = 0.611$). If only 46.6% of patients used an HAS, 80.8% of patients claimed the measure to be useful.

Conclusion. This interventional study, based on a not-compulsory prevention measure to patients, failed to demonstrate a significant benefit to reduce acquired acute diarrhoea.

Mots clés : acute diarrhoea, office, general practitioners, alcohol-based solution, interventional study

Jury :

Président de Jury : Madame le Professeur Anne-Marie Lehr-Drylewicz

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Membres du jury : Monsieur le Professeur Alain Chantepie
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Date de la soutenance : 18 octobre 2012