

Effects of SARS on consultations in primary care in Hong Kong

R S Y Lee 李兆妍, R C Fraser, C L K Lam 林露娟, K S Ho 何健生, D K T Li 李國棟

Summary

Objective: To study the infection control measures and concerns in primary care practices, and the effects of SARS on primary care consultation using the Leicester Assessment Package (LAP) criteria during the SARS episode in Hong Kong.

Design: A postal survey using a questionnaire. The questionnaire consisted of three parts on the demographic data, infection control precautions taken and concerns of the respondents, and the effect of SARS on consultations.

Subjects: Full members and fellows of the HKCFP.

Main outcome measures: Infection control precautions including performance of initial screening/triage, by whom and how these were carried out, actions for the triaged patients, use of personal protection equipments (PPE), organisation and format of infection control training of staff and decontamination practice; perceptions of adequacy of protection and areas of concern; and proportion and degree to which consultation skills were affected using the LAP criteria.

Results: The response rate was 60%. 71.4% respondents triaged their patients. 85.9% took temperatures of their patients. All respondents wore a mask during

consultations. 69.8% organised training for their staff and clinic. Most respondents regularly decontaminated their clinic. 56% felt adequately protected by their infection control precautions and use of PPE but 44% did not. The major concerns were the variable clinical presentations of SARS, the practicability of wearing full protection, and the lack of early and reliable diagnostic tests. The type of practice was found to be a factor affecting the choice of infection control precautions. Consultation skills were found to be affected in $\leq 25\%$ of consultations. History taking, physical examination, management and problem solving were found to be more difficult but relationship with patients and anticipatory care became easier.

Conclusion: Choice of infection control precautions was related to the type of practice. The major concerns of primary care physicians were the variable clinical presentations of SARS and the lack of early and reliable diagnostic tests. Consultation skills were affected in $\leq 25\%$ of consultations but patients were found to be more receptive to anticipatory care.

Keywords: SARS, consultation, primary care

摘要

目的: 研究香港 SARS 流行期間基層醫療醫生的感染控制措施和擔心, 及應用 Leicester 評估工具 (Leicester Assessment Package, LAP) 研究 SARS 對基層醫療接診的影響。

設計: 郵寄問卷調查。問卷包括人口統計學數據、感染控制措施和應答者的擔心, 以及 SARS 對醫生應診的影響三部份。

對象: 香港家庭醫學學院院士及會員。

測量內容: 感染控制措施, 包括初篩/分診制度、對分診後的病人採取的措施、個人防護設備 (PPE) 的使用、感染控制培訓活動和消毒操作; 對防護措施的感覺和擔心的事項; 及應用 LAP 標準測量應診技能受到影響的比例和程度。

結果: 應答率為 60%。71.4% 的應答者對病人進行了分診; 85.9% 為病人測量體溫; 所有人接診病人時都戴口罩; 69.8% 有組織員工培訓; 絕大多數的人都定時為診所進行消毒。56% 應答者認為感染控制措施和

R S Y Lee, MBBS, MPH, FHKCFP, FHKAM(Family Medicine)
Chairman,
Research Committee, The Hong Kong College of Family Physicians.

R C Fraser, CBE, MD, FRCGP, FHKCFP
Professor of General Practice,
University of Leicester, UK,
Honorary Advisor, Research Committee, The Hong Kong College of Family Physicians.

C L K Lam, MBBS, FRCGP, FHKCFP, FHKAM(Family Medicine)
Associate Professor,
Family Medicine Unit, The University of Hong Kong,
Honorary Advisor, Research Committee, The Hong Kong College of Family Physicians.

K S Ho, MBBS, FHKCFP, FHKAM(Medicine), FHKAM(Family Medicine)
Consultant (Family Medicine),
Elderly Health Services, Department of Health.

D K T Li, MBBS, FHKCFP, FHKAM(Family Medicine)
President,
The Hong Kong College of Family Physicians.

Correspondence to: Dr R S Y Lee, Aberdeen Elderly Health Centre, 10 Reservoir Road, Aberdeen, Hong Kong.

個人防護設備 (PPE) 可以為他們提供充分的保護，但 44% 的人並不認同。主要擔心的事項包括 SARS 臨床表現的多樣性、穿戴全套防護設備的可行性以及該病缺乏可靠的早期診斷方法。調查發現診所種類影響到感染控制措施的選擇。接診技能受到的影響不超過 25%；收集病史、體檢、治療和處理問題方面的難度增加，但醫患關係和預防性治療則較容易。

結論：選擇的感染控制措施同診所的類型有關。基層醫生擔心的主要事項有 SARS 臨床表現的多樣性及其缺乏可靠的早期診斷方法。只有不到 25% 的接診過程中接診技能受到影響，但病人對預防性療法更容易接受。

主要詞彙：SARS，接診，基層醫療

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Introduction

Severe Acute Respiratory Syndrome (SARS) is an acute respiratory illness caused by infection with the SARS virus. In March 2003, more than 50 hospital healthcare workers in Hong Kong were identified as having a febrile illness and eight developed x-ray signs of pneumonia.¹ Since then SARS has dominated the headlines in Hong Kong newspapers. Failure to detect the presence of bacteria and viruses known to cause respiratory disease suggested that the causative agent was a novel pathogen. A new coronavirus was later isolated from patients with SARS.² The virus disseminated largely by droplet spread and could be contracted through close contacts with or unprotected exposure to those infected, such as in a health care setting or household.

Although SARS infected mainly hospital healthcare workers, a few primary healthcare workers were infected in Hong Kong as well. To prevent SARS and other droplet infections in their clinics, the Department of Health issued a supplement to their "Guidelines on infection control practice in the clinic setting" on droplet and contact precaution. The precautions included mandatory hand washing, wearing of a surgical mask and protective clothing within clinic areas, wearing of gloves when in contact with blood, body fluids or secretions, patient triage and defining high-risk areas in the clinic.³ Similar precautions were also adopted already by many primary care clinics although individual implementation might differ due to practicability in different types of practice.

The SARS epidemic affected 1,755 individuals, including 300 deaths in Hong Kong.⁴ On June 23, 2003, after more than three months of battling with SARS, Hong Kong was removed from the list of SARS affected areas and declared healthy and safe for travellers by the World Health Organisation. The objectives of this study were to study the infection control precautions and concerns in primary care practice, as well as the effects of SARS on primary care consultations using the Leicester Assessment Package (LAP) criteria during the SARS episode in Hong Kong.

Methods

All full members and fellows of the Hong Kong College of Family Physicians were surveyed by postal questionnaire (a copy of the questionnaire can be obtained from the author upon written request) in July 2003 when the SARS outbreak was over. Overseas members and fellows were excluded. A pilot survey was performed on 20 fellows in mid June 2003. The questionnaire consisted of 18 questions in three parts. Part 1 (questions 1-5) gathered demographic data concerning the respondents. Part 2 (questions 6-15) explored their infection control precautions and concerns during the SARS episode. Part 3 (questions 16-18) assessed the effects of SARS on their consultation skills using the LAP.⁵ LAP is an integrated consultation skills assessment tool whose criteria of consultation competence have been validated both in the United Kingdom⁶ and in Hong Kong.⁷ It contains 39 component consultation competences in seven consultation categories, namely: interview/history taking, physical examination, patient management, problem solving, behaviour/relationship with patients, anticipatory care and record keeping.

Descriptive results were represented as percentages. Univariate analysis using the Chi squared test was performed to determine whether any factors in Part 1 influenced the infection control precautions and concerns of primary care physicians in Part 2. Multivariate analysis was then repeated using multiple logistic regression with backward stepwise procedure to explore significant factors as appropriate. The cut-off point of entry of multiple logistic regression was fixed at 0.05 and the cut-off point of exclusion at 0.10 for the probability values. A two-sided 5% level of significance is considered significant for the statistical tests. Statistical analysis was performed using SPSS for windows version 10.0 (SPSS Inc, Chicago III).

In question 16 of Part 3, scores 1 to 5 were allocated to each LAP consultation component: 1 = much easier, 2 = a little easier, 3 = not at all affected, 4 = a little more difficult and 5 = much more difficult. The mean scores were calculated for each consultation component to assess the degree to which it was affected. As a score of 3 was considered neutral, a mean score in either direction from 3 showed the trend was either easier if less than 3, or more difficult if greater than 3. The non-parametric Sign test was employed to detect any significant trend in the respondents' feelings towards each consultation component. The mean of the mean scores of each consultation component in a category represented the degree to which that category was affected. Qualitative data on how other aspects of consultations were affected was explored in question 18 of Part 3.

Results

A total of 318 questionnaires were returned at the end of the survey period. The response rate was 60%. The respondents' demographic profiles are shown in **Table 1**. The infection control precautions and concerns of respondents are summarised in **Table 2**. One of the significantly ($p < 0.05$) associated demographic factors is the type of practice. Comparison between public and private practices is summarised in **Table 3**. 71.4% respondents (84.7% public practices and 68.0% of private practices; $p = 0.01$) triaged their patients. More public (87.4%) practices triaged their patients than private practices (68.0%); $p = 0.01$. 63.9%, 39.6% and 28.2% of those who carried out initial screening/triage triaged by nurses, doctors and receptionists respectively. More public practices (78.0%) triaged by nurses than private practices (49.0%); $p = 0.02$, but more private practices (49.0%) triaged by doctors than public practices (6.0%); $p = 0.02$. 85.9% respondents took the temperatures of their patients (85.9%). More private practices (95.3%) took temperatures than public ones (58.0%); $p < 0.01$. Other means of triage reported were patients' self-reporting of fever (69.2%), contact (69.2%) and symptoms (62.6%), travel history and history of hospital visits. For triaged patients suspected of SARS, 87.1% respondents asked the patients to wear a surgical mask, 61.3% saw them first, 60.1% kept minimal contact time, 34.9% put them in a separate waiting area and 28.0% saw them in a designated room/area. More public (74.6%) than private practices (23.3%) put triaged patients in a separate waiting room ($p = 0.03$), and saw them in a designated consultation room (public 67.8%, private 16.4%; $p = 0.03$).

In the use of personal protection equipment (PPE), goggles, disposable gown, cap and shoe cover were used more by respondents working in public practices. All respondents wore either a N95 or surgical mask during consultation. N95 masks were used in high-risk procedures.

There were 69.8% of respondents who organised training for their clinic staff. There was no association between whether training was organised and the type of practice but the format of training varied with the type of practice. The format of training included hands-on teaching (73.0%), practice meeting (46.8%), pamphlet/handout (36.8%), video (14.0%) and seminar/workshop

Table 1: Demographic data of the respondents

	Factors	N	%
Sex	Male	257	80.8
	Female	61	19.2
Age group	≤ 30	3	0.9
	31-40	76	23.9
	41-50	88	27.7
	51-60	87	27.4
	61+	61	19.2
Qualifications	FHKCFP	163	51.3
	FRACGP	124	39.0
	FHKAM (Family Medicine)	98	30.8
	Others	126	39.6
Practice	Private	219	68.9
	Public	59	18.6
	Group	43	13.5
	Solo	84	26.4
	Others	10	3.1
Districts	Central and West	43	13.5
	Wanchai	26	8.2
	Eastern	42	13.2
	Southern	9	2.8
	YauTsimMong	38	11.9
	ShamshuiPo	21	6.6
	Kowloon City	27	8.5
	WongTaiSin	16	5.0
	KwunTong	24	7.5
	KwaiTsing	16	5.0
	Tsuen Wan	10	3.1
	Tuen Mun	13	4.1
	Yuen Long	5	1.6
	Northern	2	0.6
	Tai Po	9	2.8
Shatin	24	7.5	
Sai Kung	9	2.8	
Islands	5	1.6	
Total		318	100.0

Table 2: Infection control measures and concerns of respondents during SARS

	Yes		No	
	N	%	N	%
Did you triage?	227	71.4	91	28.6
Who carried out the triage?	n	%		
Nurses	145	63.9		
Doctors	90	39.6		
Receptionists	64	28.2		
Others	7	3.1		
How did you carry out the triage?				
Take temperature	195	85.9		
Self-reporting fever	157	69.2		
Self-reporting contact	157	69.2		
Self-reporting symptoms	142	62.6		
Others	16	7.0		
Actions for triaged patients				
Ask them wear surgical mask	277	87.1		
See them first	195	61.3		
Keep minimal contact time	191	60.1		
Separate waiting room	111	34.9		
See in a designated area/room	89	28.0		
Use of PPE		In usual consultation*		
N95 mask	165	51.9	34	10.7
Surgical mask	221	69.5	15	4.7
Gloves	185	58.2	22	6.9
Goggles	92	28.9	77	24.2
Face shield	69	21.7	97	30.5
White coat	222	69.8	35	11.0
Disposable gown	119	37.4	76	23.9
Cap	112	35.2	87	27.4
Shoe cover	24	7.5	148	46.5
Did you organise training for your clinic/staff?	222	69.8	96	30.2
Format of training	n	%		
Hands-on teaching	162	73.0		
Practice meeting	104	46.8		
Pamphlet/handout	82	36.8		
Video	31	14.0		
Seminar/workshop	30	13.4		
Decontamination		After usual use*		
Diagnostic instruments	236	74.2	6	1.9
Pen	136	42.8	70	22.0
Telephone	131	41.2	70	22.0
Pager	52	16.4	123	38.7
Chair	129	40.6	45	14.2
Desk	174	54.7	17	5.3
Floor	117	36.8	30	9.4
Did you feel adequately protected?	178	56.0	140	44.0
Reasons for feeling inadequately protected			n	%
Variable clinical presentations			111	79.3
Not practical to wear full protection			100	71.4
Lack of early diagnostic test			102	72.9
Lack of reliable diagnostic test			91	65.7
Uncertain about nature of pathogen			82	58.6
Worry colleague not proper infection control			56	40.0
Nature of pathogen(s)			51	36.4
Mortality rate			47	33.6
Others			12	8.6

*Exclude use in/after "suspected SARS patients" and "high risk procedures"

Table 3: Infection control precautions in public and private practices

Infection control precaution	Public (%)	Private (%)	<i>p</i> value
Performance of initial screening/triage			
Perform triage	84.7	68.0	0.01
Nurses carried out triage	78.0	40.9	0.02
Doctors carried out triage	6.0	49.0	0.02
Take temperature	58.0	95.3	<0.01
Actions for triaged patients			
Separate waiting room	74.6	23.3	0.03
Designated consultation room	67.8	16.4	0.03
Use of PPE in regular consultations			
Goggles	87.5	43.5	<0.01
Disposable gown	95.2	47.2	0.03
Cap	93.3	45.1	<0.01
Shoe cover	29.4	7.8	<0.01
Format of training			
Hands-on teaching	41.5	82.2	<0.01
Practice meeting	65.9	37.5	<0.01
Video	85.5	35.5	<0.01
Seminar/workshop	48.8	5.2	<0.01

(13.4%). 82.2% of private practices and 85.5% of solo practices which organised training provided hands-on teaching while only 41.5% of public and 72.2% of group practices did so; $p < 0.01$ and $p = 0.03$ respectively. 32.7% and 61.1% of group practices organised practice meetings and used pamphlet/handout for training while 3.3% and 16.7% of solos practices did so; $p = 0.03$ and $p = 0.04$ respectively. Public practices trained more by video (85.5%) and seminar/workshop (48.8%) as compared to private practices (35.5% and 5.2% respectively), $p < 0.01$. Most respondents regularly decontaminated the diagnostic instruments and furniture in the clinic.

Fifty-six percent felt adequately protected by their infection control measures but 44.0% did not. More fellows of HKAM (68.4%) felt adequately protected than non-fellows (50.5%); $p < 0.01$; and more public doctors (69.5%) felt adequately protected than private ones (53.4%); $p = 0.02$. The major concerns were the variable clinical presentations of SARS (79.3%), the impracticality of wearing full protection (71.4%) and the lack of early (72.9%) and reliable (65.7%) diagnostic tests. (Table 2) More private doctors (77.5%) found it not practical to wear full protection than public ones (44.4%); $p = 0.01$.

The proportions of consultations with consultation skills affected by SARS are summarised in Table 4. 58-67% respondents reported their consultation skills

were affected in less than 25% in different categories of their consultations. The effects of SARS on consultation skills are summarised in Table 5. 50-60% respondents found the 39 LAP consultation components not affected at all. Among those affected, 16 components became more difficult and six became easier. The more difficult and easier consultation components are summarised in Tables 6 and 7, in descending order.

Among the seven consultation categories, history taking, physical examination, patient management and problem solving were found to become more difficult while relationships with patients, anticipatory care and record keeping became easier. No association was found between the demographic factors in Part 1 of the questionnaire and the effects of SARS on consultation skills.

In question 18 regarding how other aspects of consultations were affected, many respondents reported an initial surge in patient attendance followed by a significant drop. More stringent infection control measures led to increased work and expenditure. Some patients and clinic staff suffered from anxiety and disturbed mood and some became more prone to give antibiotics for fever cases. Many reported improved relationships with patients during the SARS episode.

Discussion

The variable clinical presentations of SARS were the major concern among the respondents. Uncertainty and lack of diagnostic tools to confirm or refute the diagnosis, especially in the initial stages of the SARS episode, made reassurance (LAP components 2 and 19), physical examination with the interpretation of physical signs

Table 4: Proportion of consultations with consultation skills affected by SARS

Consultation category	% of consultations affected			
	≤ 25%	26-30%	51-75%	>76%
History	63.0	22.1	9.9	5.0
Physical examination	58.2	23.4	13.2	5.3
Management	66.1	20.9	9.0	4.0
Problem solving	65.4	23.3	8.3	3.0
Relationship with patients	62.3	17.7	15.0	5.0
Anticipatory care	59.5	20.3	12.0	8.3

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Table 5: Effects of SARS on consultation skills using the LAP criteria

LAP criteria	Easier (%)	Not affected (%)	More difficult (%)	Mean	SD	p value
Interviewing/History taking				3.05		
1. Introducing self to patients	9.9	61.8	28.3	3.19	.77	<0.01
2. Putting patients at ease	9.2	35.0	55.7	3.49	.88	<0.01
3. Allowing patients to elaborate presenting problem fully	18.2	55.6	26.2	3.04	.84	0.04
4. Listening attentively	17.5	62.1	20.4	2.97	.82	0.46
5. Clarifying words used by patients	16.1	61.4	22.5	3.03	.77	0.10
6. Phrasing questions simply and clearly	16.3	63.9	19.8	3.00	.77	0.35
7. Using silence appropriately	13.8	69.9	16.3	3.00	.66	0.47
8. Recognising patients' verbal cues	19.3	59.5	22.2	3.02	.81	0.33
9. Recognising patients' non-verbal cues	16.9	53.3	29.8	3.15	.89	<0.01
10. Identifying patients' reason(s) for consultation	27.4	54.1	18.5	2.83	.90	0.02
11. Considering physical/social/psychological factors as appropriate	20.7	60.2	19.1	2.95	.76	0.72
12. Seeking relevant and specific information from patients to help distinguish between working diagnoses	19.0	57.8	23.2	2.99	.83	0.30
13. Achieving well organised approach to information gathering	1.9	61.8	22.3	3.03	.79	0.08
Physical examination				3.25		
14. Examining and eliciting physical signs correctly	13.0	43.2	43.8	3.30	.85	<0.01
15. Performing examination sensitively	12.0	51.9	36.0	3.23	.76	<0.01
16. Using instruments competently and sensitively	12.5	53.0	34.5	3.22	.79	<0.01
Patient management				3.06		
17. Formulating management plans appropriate to findings and circumstances	17.6	55.0	27.5	3.09	.84	0.01
18. Formulating management plans in collaboration with patients	19.7	51.6	28.7	3.06	.88	0.03
19. Providing appropriate reassurance and explanation	19.4	43.2	37.5	3.16	.93	<0.01
20. Using clear and understandable language	17.2	63.0	19.8	2.98	.74	0.54
21. Making discriminating use of drug therapy	15.3	61.7	23.0	3.05	.78	0.04
22. Making discriminating use of referral	14.2	62.2	23.6	3.07	.77	0.01
23. Making discriminating use of investigations	17.5	54.2	28.3	3.09	.86	0.01
24. Preparedness to use time appropriately	15.1	56.1	28.8	3.12	.81	<0.01
25. Checking patients' level of understanding	1.5	58.1	24.4	3.03	.78	0.07
26. Arranging appropriate follow-up	24.8	51.6	23.6	2.95	.87	0.81
27. Making attempts to modify help-seeking behaviour of patients as appropriate	22.5	53.1	24.4	3.00	.84	0.68
Problem solving				3.10		
28. Generating appropriate working diagnoses or identifying problems depending on circumstances	16.0	55.9	28.1	3.10	.79	<0.01
29. Seeking relevant and discriminating physical signs to help confirm or refute working diagnoses	11.9	52.4	35.7	3.26	.79	<0.01
30. Correctly interpreting and applying information obtained from patient records, history, physical examination and investigations	13.1	65.3	21.7	3.07	.73	0.01
31. Correctly applying knowledge of basic, behavioural and clinical sciences to the identification, management and solution of patients' problems	14.4	65.2	20.4	3.05	.71	0.09
32. Capability to recognise limits of personal competence and acting accordingly	16.3	65.2	18.5	3.00	.72	0.57
Behaviour/relationship with patients				2.87		
33. Maintaining friendly, professional and ethical relationship with patients	30.2	49.8	20.0	2.83	.93	0.01
34. Conveying sensitivity to the needs of patients	27.6	51.3	21.2	2.88	.87	0.12
35. Demonstrating an awareness that the patient's attitude to the doctor affects management and achievement of levels of cooperation and compliance	28.0	50.5	21.5	2.89	.85	0.13
Anticipatory care				2.69		
36. Acting on appropriate opportunities for health promotion and disease prevention	45.9	31.2	22.9	2.78	1.06	<0.01
37. Providing sufficient explanation to patients for preventive initiatives taken	41.6	37.8	20.6	2.70	1.01	<0.01
38. Ability to sensitively enlist the co-operation of patients to promote change to healthier lifestyles	47.9	35.5	16.6	2.60	.97	<0.01
Record keeping				2.81		
39. Making accurate, legible and appropriate record of every doctor-patient contact and referral	20.3	73.4	6.3	2.81	.68	<0.01

Table 6: LAP consultation components found to be more difficult during the SARS episode

LAP consultation component	Mean score
2 Putting patient at ease	3.49
29 Examining and eliciting physical signs correctly	3.30
14 Seeking relevant and discriminating physical signs to help confirm or refute working diagnoses	3.26
15 Performing examination sensitively	3.23
16 Using instruments competently and sensitively	3.22
1 Introducing self to patients	3.19
19 Providing appropriate reassurance and explanation	3.16
9 Recognising patients' non-verbal cues	3.15
24 Preparedness to use time appropriately	3.12
28 Generating appropriate working diagnoses or identifying problems depending on circumstances	3.10

Table 7: LAP consultation components found to be easier during the SARS episode

LAP consultation component	Mean score
38 Ability to sensitively enlist the co-operation of patients to promote change to healthier lifestyles	2.60
37 Providing sufficient explanation to patients for preventive initiatives taken	2.70
36 Acting on appropriate opportunities for health promotion and disease prevention	2.78
39 Making accurate, legible and appropriate record for every doctor-patient contact and referral	2.83
33 Maintaining friendly, professional and ethical relationship with patients	2.83
10 Identifying patients' reason(s) for consultation	2.83

(LAP components 14,15,16 and 29), and diagnosis (LAP component 28) more difficult. Wearing a mask was uncomfortable and obscured facial expression. Communication with patients was therefore compromised (LAP components 1 and 9) and affected time management (LAP component 24) since more time was needed for reassurance and communication, although minimising waiting and contact time of patients in the clinic was deemed to be desirable to prevent cross-infection.

Anticipatory care (LAP components 36-38) was found to be easier as patients became more health conscious. Some respondents found patients became more compliant with medical advice, and were more considerate e.g. they covered their mouth when coughing. The media and the general community were appreciative of the dedication and work of healthcare workers during this critical period. These factors may have contributed to an improved doctor-patient relationship (LAP component 33).

Use of PPE is most effective in infection control if it is coupled with defining "clean" and "high risk" areas and restricting the flow of people across the two areas. In

many primary care clinics, the staffs are multi-skilled; they may be chaperones for doctors in the consultation room and also cashiers at the counter. Changing the whole set of PPE each time when moving across different areas was not practical. Respiratory symptoms with or without fever are among the most common reasons for patients consulting primary care doctors except in some government general outpatient clinics where chronic diseases constitute the majority of workload. Triage by taking temperatures was therefore much more meaningful than triage by self-reporting of symptoms and fever. Putting the triaged patients in a different waiting room and seeing them in a designated consultation room were also not practical, not only due to the limitation of space but also due to the nature of complaints with which patients presented. Many respondents therefore reported regular decontamination of diagnostic instruments, furniture and floor every few hours as a routine measure instead of after "high risk" consultations.

An important factor affecting the respondents' choice of infection control precautions and equipment was their

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Key messages

1. Infection control precautions adopted by the respondents were related to their type of practice. e.g. public practices had more division of labour and private solo practices adopted more personalised and individualised measures.
2. Major concerns of the respondents were the variable clinical presentations of SARS, the practicability of wearing full protection equipments, and the lack of early and reliable diagnostic tests.
3. Consultation skills were affected in <25% of consultations. Physical examination, history, problem solving and management became more difficult but anticipatory care and relationships with patients became easier.
4. Better communication, information sharing among all disciplines of our profession, and development of better diagnostic tools for primary care use will help if SARS recurs.
5. Patients in Hong Kong now have greater awareness of the potential benefits of disease prevention and health promotion.

type of practice. Public and group practices incorporated more division of labour, while private and solo practices offered more personalised and individual care. Public practices carried out more triage. The triaged patients were put and seen in separate waiting and consultation rooms. They used more video and seminars/workshops in training. Private practices took temperatures for triage and provided hands-on training for their staff.

Even with the introduction of all these infection control precautions, 44% of respondents still felt inadequately protected. The major concerns were the variable clinical presentations of SARS, the practicability of wearing full PPE, uncertainty about the nature of the pathogen, and the lack of early and reliable diagnostic tests.

The limitations of the study were that the study population included only full members and fellows of the

HKCFP, and response to the postal questionnaire was voluntary. People who chose to respond may be different from those who did not. Therefore the respondents may not be representative of all primary care physicians in Hong Kong.

Conclusion

The period between March and June 2003 was a most challenging time for primary care physicians in Hong Kong. There were anxieties, uncertainties, increased work and expenditure. However, not only have more stringent infection control measures appropriate to the type of practice been implemented in many primary care clinics, patients are now more aware of, and responsive to, the important contribution that anticipatory care i.e. disease prevention and health promotion can make to their well-being.

The major concerns of physicians were the variable clinical presentations of SARS, uncertainty about the nature of the pathogen, and the lack of early and reliable diagnostic tests. Improved communication and sharing of information among all disciplines of our profession and development of better diagnostic tools for primary care use will improve patient care and infection control in future if SARS recurs. ■

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