Efforts to Deal with Allergic Diseases at School in Japan

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Introduction

It is not rare to encounter children with allergic diseases in daily school life. In Japan, there are some surveys indicating that the number of school children with allergic diseases is increasing recently. Allergic diseases are characterized by the necessity of long-term control and can be even life-threatening in some cases. Teaching and guidance at school always require close attention, and it is necessary that each teacher has an accurate knowledge of the characteristics of the allergic diseases children might have and understands the points that require attention when teaching.

In the past, Ministry of Education, Culture, Sports, Science and Technology (MEXT) of Japan has been making efforts in creating and promoting documents such as "Q&As on atopic dermatitis in school life" and "Health management manual for school children with asthma." Upon conducting surveys on allergic diseases in school life to understand the actual situation and efforts by schools, the MEXT established a special committee at Japanese Society of School Health, developed "School Life Management and Guidance Form (for Allergic Diseases)," and distributed the "Efforts to deal with allergic diseases at school: Guidelines" to schools and others.[1]

At the workshop for school physicians held by Japan Medical Association in Fiscal Year (FY) 2007, the symposium "Allergic diseases at schools: Support and management" brought much lively discussions.[2–5] Since FY 2008, a program was launched to deal with students with allergic diseases based on a physician's diagnosis. Here I will explain the steps to take to ensure the solid operation of the program in Japanese school system.

Current Situation and Measures for Allergic Diseases in Students

In FY 2004, MEXT conducted a nationwide survey in public elementary, middle and high schools (total 36,830 schools) as preparation for developing measures against allergic diseases at school. In this survey, students' situations and the actions taken at each school were investigated for asthma, atopic dermatitis, allergic rhinitis, allergic conjunctivitis, food allergy, and anaphylaxis. The results were summarized and disclosed at the end of FY 2006. The overview of this report is available online.*

The survey found that allergic diseases are not rare in school children, and thus situations call for the actions by school health system be made under the premises that various allergic diseases exist among children in any class or school. It was also found necessary to further promote the efforts to deal with allergic diseases at school in order to make school a safe and secure learning place for all students (**Figs. 1–6**).

Development of "Efforts to Deal with Allergic Diseases at School: Guidelines"

Based on the above described surveillance study by MEXT, the committee to promote and examine efforts to deal with allergic diseases at school (hereafter the Committee) was established at Japanese Society of School Health in FY 2007.

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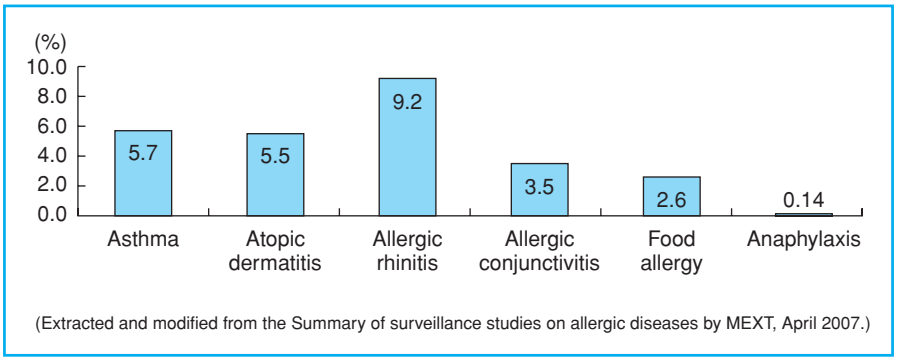


Fig. 1 Overall prevalence rates of allergic diseases in students (FY 2004)

The prevalence rates of allergic diseases presented above are mostly consistent with the epidemiological survey results of the past. However, the prevalence rates for allergic rhinitis and conjunctivitis were somewhat lower than the previous data. Health examination may not have fully identified the relevant cases. Regarding food allergy and anaphylaxis, the comparable epidemiological data were not available due to insufficient studies in the past.

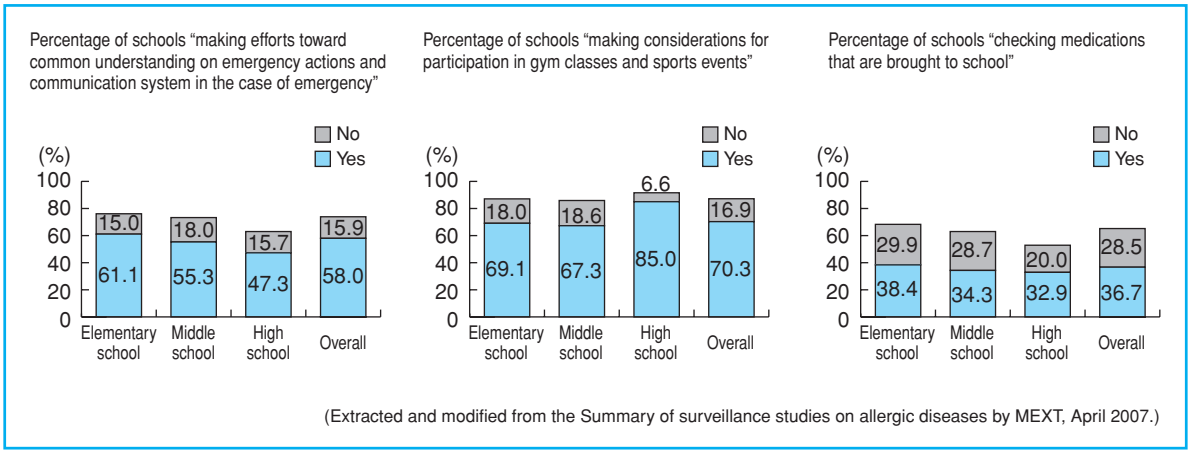


Fig. 2 Efforts to deal with asthma

More than 95% of schools were making efforts to grasp the situation of asthma among students. A future issue will be to acquire more information that can improve the considerations and actions to be implemented. Only 58% of schools were making efforts on what actions to take for emergency, which is hardly sufficient.

After about 10 months of discussions, "Efforts to deal with allergic diseases at school: Guidelines"[1] (hereafter Guidelines) and "School Life Management and Guidance Form (for Allergic Diseases)" (hereafter the Allergy Form) were developed (**Fig. 7**). Now I will explain how to utilize these materials in the health guidance and management of students with allergic diseases.

Basic idea behind the efforts

Based on the MEXT's study results, two issues were raised to promote efforts to deal with allergic diseases at school: 1) a system should be created to ensure that the actions taken for individual students are based on instructions by physicians, and, 2) various school efforts that are based on medical evidence should be made in a safe, reliable, and efficient manner.

The conclusion of the Committee was that, based on the current status of the efforts in dealing with allergic diseases at school, the future plans should include the education for school staff on the accurate knowledge of allergic diseases. The Committee also proposed to create a system to ensure that school's actions would be based on the medical evidence in a safe, reliable,

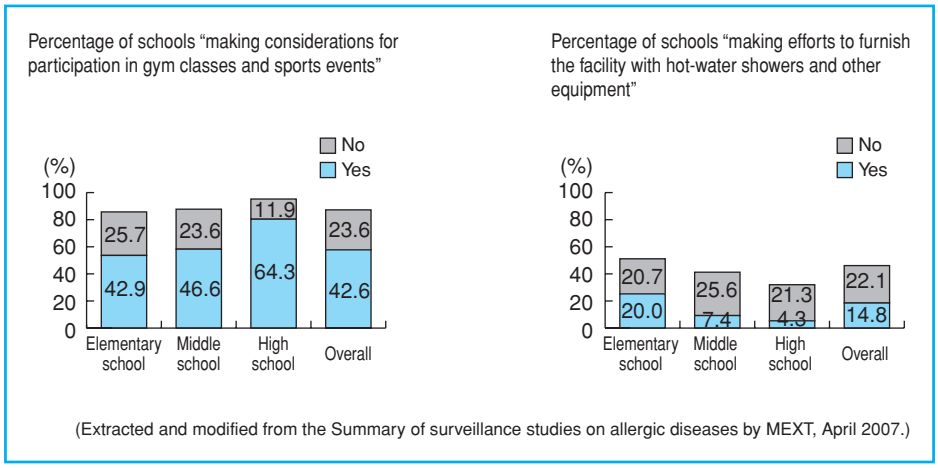


Fig. 3 Efforts to deal with atopic dermatitis

More than 95% of schools were making efforts to grasp the situation of atopic dermatitis among students. Only 46.2% of schools were making considerations for participation in gym classes and sports events. Aggravation factors for atopic dermatitis include sweat, ultraviolet rays, and disinfectant in swimming pool. It is important that school staff fully understand such basic knowledge so that appropriate considerations will be made when necessary. Only 14.8% of schools were equipped with a hot-water shower.

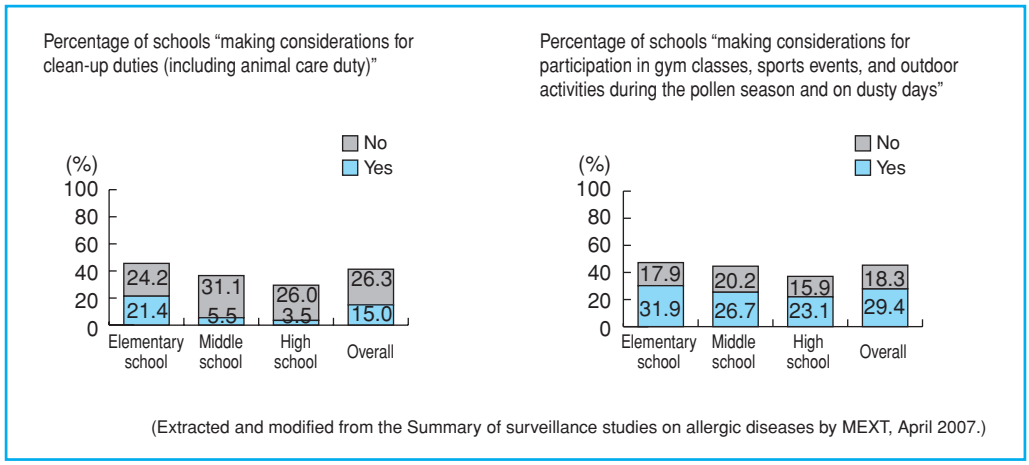
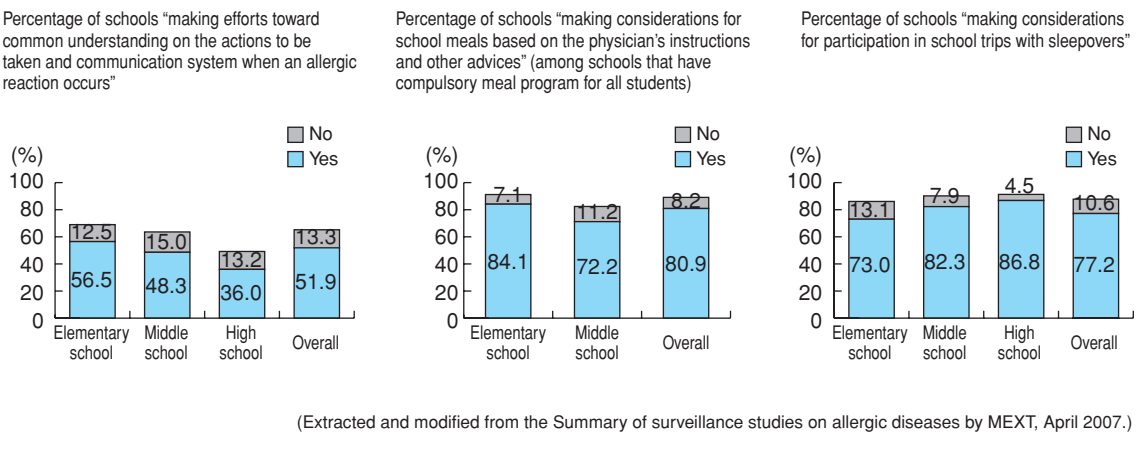


Fig. 4 Efforts to deal with allergic rhinitis and conjunctivitis

Only about 80% of schools were making efforts to grasp the situation of allergic rhinitis and conjunctivitis among students. The percentages of schools that were making considerations for clean-up duties (including animal care duty) or other possibly aggravating activities were only 15% and 29.4%, respectively. It is necessary to promote the understanding among school staff on the characteristics and specific considerations recommended for these diseases. Students with these diseases are likely to require self management even after they reach adulthood. Schools are strongly advised to assist each student to develop self-management ability without limiting opportunities to participate in daily school activities and classes as much as possible.

and efficient manner.

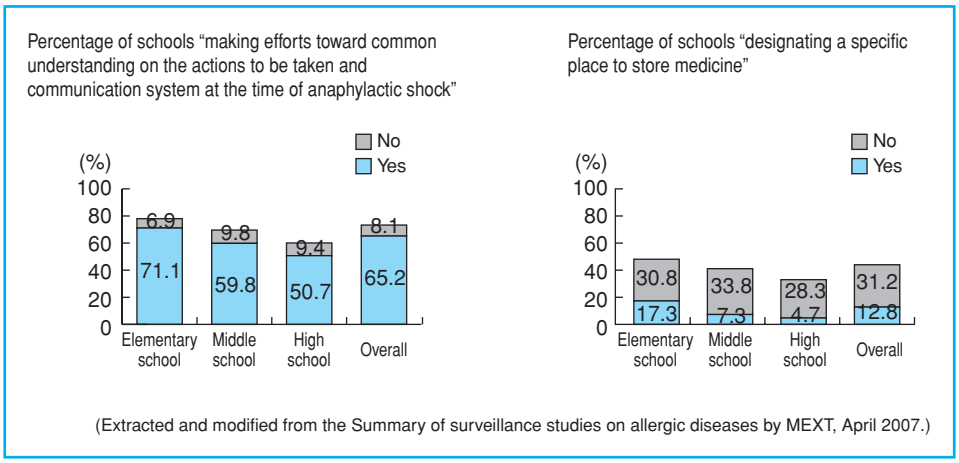
The Committee also discussed the development of School Life Management and Guidance Form that is specifically prepared for allergic diseases as a tool to help the school efforts. The original School Life Management and Guidance Form is a single-page form in A4-size (similar to letter-size), which had been used in schools for the purpose of physician-to-school communication. The form specifies the physician's instructions regarding exercise restriction or acceptable level of exercise, and it is mainly used for children whose physical activities must be restricted due to diseases (heart disease, kidney disease, etc.). It



(Extracted and modified from the Summary of surveillance studies on allergic diseases by MEXT, April 2007.)

Fig. 5 Efforts to deal with food allergy

More than 95% of schools were making efforts to grasp the situation of food allergy among students. Only 51.9% of schools were making efforts to prepare for an emergency. More than 80% of schools were adjusting the school meals to deal with food allergies. 77.2% of schools were making considerations for school trips with sleepovers.



(Extracted and modified from the Summary of surveillance studies on allergic diseases by MEXT, April 2007.)

Fig. 6 Efforts to deal with anaphylaxis

More than 95% of schools were making efforts to grasp the situation of anaphylaxis among students. A future issue will be to acquire more detailed information that can contribute to school efforts. Only 65.2% of schools were preparing for emergency. Anaphylaxis is a rare but severe disease that is life-threatening when occurs. Considering there have been cases that a very first episode for a student happened while at school, all schools should share the information on the causes and symptoms and have common understanding on the actions to be taken at the time of onset. Only 12.8% of schools had a designated place to store medicine.

is designed for school life management and guidance and has been used in schools nationwide with successful results.

This form was adopted for students with allergic diseases as the Allergy Form (formally called the School Life Management and Guidance Form (for Allergic Diseases)), in order to communicate the physician's instructions to school properly. The Allergy Form, which includes information on types and levels of allergic diseases a student has and the specific instructions from his/her physicians, is also expected to help school to realize its various efforts practically by establishing a system to utilize it in future. At the same time, an operational manual has been prepared for schools, parents, and physicians,

(Front)


学校生活管理指導表（アレルギー疾患用）

名前＿＿＿＿＿＿＿＿　男・女　平成＿＿年＿＿月＿＿日生（＿＿歳）　＿＿＿＿＿＿＿＿学校＿＿年＿＿組　提出日 平成＿＿年＿＿月＿＿日

気管支ぜん息（あり・なし）

病型・治療

A．重症度分類（発作型）
1．間欠型
2．軽症持続型
3．中等症持続型
4．重症持続型

B-1．長期管理薬（吸入薬）
1．ステロイド吸入薬
2．長時間作用性吸入ベータ刺激薬
3．吸入抗アレルギー薬（「インタール®」）
4．その他（　　）

B-2．長期管理薬（内服薬・貼付薬）
1．テオフィリン徐放製剤
2．ロイコトリエン受容体拮抗薬
3．ベータ刺激内服薬・貼付薬
4．その他（　　）

C．急性発作治療薬
1．ベータ刺激薬吸入
2．ベータ刺激薬内服

D．急性発作時の対応（自由記載）

学校生活上の留意点

A．運動（体育・部活動等）
1．管理不要
2．保護者と相談し決定
3．強い運動は不可

B．動物との接触やホコリ等の舞う環境での活動
1．配慮不要
2．保護者と相談し決定
3．動物へのアレルギーが強いため不可
動物名（　　）

C．宿泊を伴う校外活動
1．配慮不要
2．保護者と相談し決定

D．その他の配慮・管理事項（自由記載）

【緊急時連絡先】
★保護者
電話：
★連絡医療機関
医療機関名：
電話：

記載日　年　月　日
医師名　㊞
医療機関名

アトピー性皮膚炎（あり・なし）

病型・治療

A．重症度のめやす（厚生労働科学研究班）
1．軽症：面積に関わらず、軽度の皮疹のみみられる。
2．中等症：強い炎症を伴う皮疹が体表面積の10%未満にみられる。
3．重症：強い炎症を伴う皮疹が体表面積の10%以上、30%未満にみられる。
4．最重症：強い炎症を伴う皮疹が体表面積の30%以上にみられる。
＊軽度の皮疹：軽度の紅斑、乾燥、落屑主体の病変
＊強い炎症を伴う皮疹：紅斑、丘疹、びらん、漿液、痂皮化などを伴う病変

B-1．常用する外用薬
1．ステロイド軟膏
2．タクロリムス軟膏（「プロトピック®」）
3．保湿剤
4．その他（　　）

B-2．常用する内服薬
1．抗ヒスタミン薬
2．その他（　　）

C．食物アレルギーの合併
1．あり
2．なし

学校生活上の留意点

A．プール指導及び長時間の紫外線下での活動
1．管理不要
2．保護者と相談し決定

B．動物との接触
1．配慮不要
2．保護者と相談し決定
3．動物へのアレルギーが強いため不可
動物名（　　）

C．発汗後
1．配慮不要
2．保護者と相談し決定
3．（学校施設で可能な場合）夏季シャワー浴

D．その他の配慮・管理事項（自由記載）

記載日　年　月　日
医師名　㊞
医療機関名

アレルギー性結膜炎（あり・なし）

病型・治療

A．病型
1．通年性アレルギー性結膜炎
2．季節性アレルギー性結膜炎（花粉症）
3．春季カタル
4．アトピー性角結膜炎
5．その他（　　）

B．治療
1．抗アレルギー点眼薬
2．ステロイド点眼薬
3．免疫抑制点眼薬
4．その他（　　）

学校生活上の留意点

A．プール指導
1．管理不要
2．保護者と相談し決定
3．プールへの入水不可

B．屋外活動
1．管理不要
2．保護者と相談し決定

C．その他の配慮・管理事項（自由記載）

記載日　年　月　日
医師名　㊞
医療機関名

財日本学校保健会 作成

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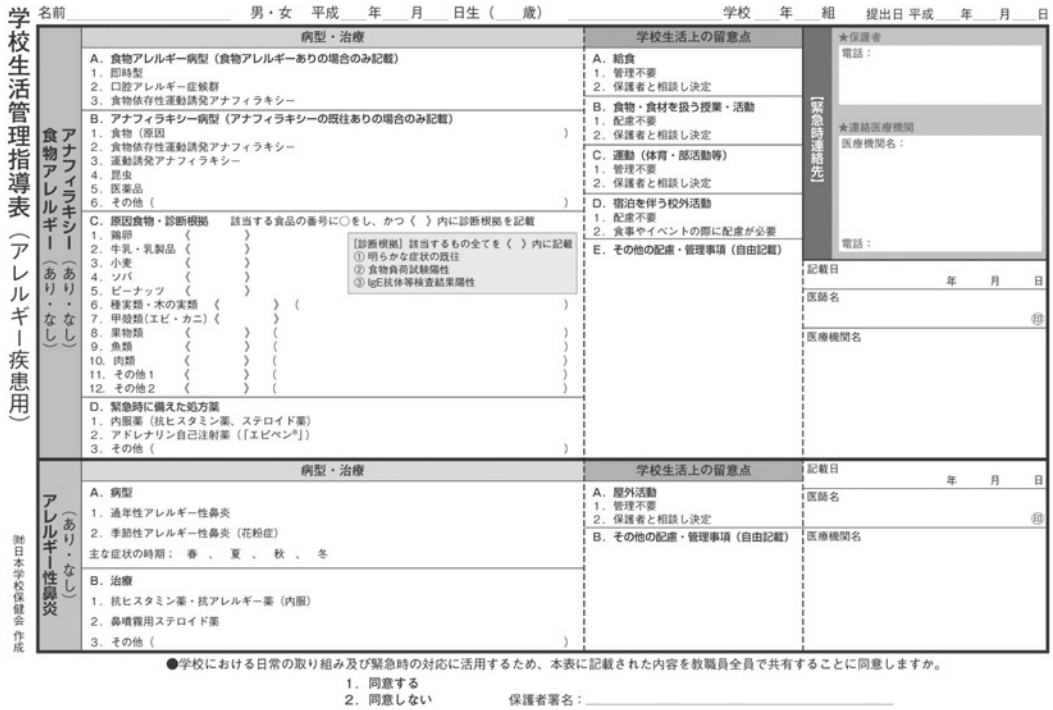
学校生活管理指導表（アレルギー疾患用）

名前＿＿＿＿＿＿＿＿　男・女　平成＿＿年＿＿月＿＿日生（＿＿歳）　＿＿＿＿＿＿＿＿学校＿＿年＿＿組　提出日 平成＿＿年＿＿月＿＿日

食物アレルギー（あり・なし）　**アナフィラキシー**（あり・なし）

病型・治療

A．食物アレルギー病型（食物アレルギーありの場合のみ記載）
1．即時型
2．口腔アレルギー症候群
3．食物依存性運動誘発アナフィラキシー

B．アナフィラキシー病型（アナフィラキシーの既往ありの場合のみ記載）
1．食物（原因　　）
2．食物依存性運動誘発アナフィラキシー
3．運動誘発アナフィラキシー
4．昆虫
5．医薬品
6．その他（　　）

C．原因食物・診断根拠　該当する食品の番号に○をし、かつ〈 〉内に診断根拠を記載

1．鶏卵　〈　　〉
2．牛乳・乳製品　〈　　〉
3．小麦　〈　　〉
4．ソバ　〈　　〉
5．ピーナッツ　〈　　〉
6．種実類・木の実類　〈　　〉（　　）
7．甲殻類（エビ・カニ）〈　　〉
8．果物類　〈　　〉（　　）
9．魚類　〈　　〉（　　）
10．肉類　〈　　〉（　　）
11．その他1　〈　　〉（　　）
12．その他2　〈　　〉（　　）

【診断根拠】該当するものを全てを〈 〉内に記載
① 明らかな症状の既往
② 食物負荷試験陽性
③ IgE抗体等検査結果陽性

D．緊急時に備えた処方薬
1．内服薬（抗ヒスタミン薬、ステロイド薬）
2．アドレナリン自己注射薬（「エピペン®」）
3．その他（　　）

学校生活上の留意点

A．給食
1．管理不要
2．保護者と相談し決定

B．食物・食材を扱う授業・活動
1．配慮不要
2．保護者と相談し決定

C．運動（体育・部活動等）
1．管理不要
2．保護者と相談し決定

D．宿泊を伴う校外活動
1．配慮不要
2．食事やイベントの際に配慮が必要

E．その他の配慮・管理事項（自由記載）

【緊急時連絡先】
★保護者
電話：
★連絡医療機関
医療機関名：
電話：

記載日　年　月　日
医師名　㊞
医療機関名

アレルギー性鼻炎（あり・なし）

病型・治療

A．病型
1．通年性アレルギー性鼻炎
2．季節性アレルギー性鼻炎（花粉症）
主な症状の時期：　春　、　夏　、　秋　、　冬

B．治療
1．抗ヒスタミン薬・抗アレルギー薬（内服）
2．鼻噴霧用ステロイド薬
3．その他（　　）

学校生活上の留意点

A．屋外活動
1．管理不要
2．保護者と相談し決定

B．その他の配慮・管理事項（自由記載）

記載日　年　月　日
医師名　㊞
医療機関名

財日本学校保健会 作成

●学校における日常の取り組み及び緊急時の対応に活用するため、本表に記載された内容を教職員全員で共有することに同意しますか。
1．同意する
2．同意しない　　保護者署名：＿＿＿＿＿＿＿＿

(Prepared by: Japanese Society of School Health.)

Fig. 7 School Life Management and Guidance Form (for Allergic Diseases) (“Allergy Form”)

describing the points to consider according to each role (**Fig. 7**).

Management and guidance using School Life Management and Guidance Form (for Allergic Diseases)

First, schools and school boards should identify students with allergic disease and request their guardians to submit the Allergy Form. If the parents wish to participate, they are to have it filled out by the child's physician(s) and/or school physician before being submitted to the school. Based on the submitted Allergy Form, the school will discuss with the guardians and implement actions.

The Allergy Form is a two-sided, single sheet form, designed to describe major allergic diseases of a given student. The school will archive the submitted forms for all school staff to access in the case of an emergency, while taking reasonable precautions to protect the students' personal information. The form shall be submitted every year (or more frequently) by each relevant student for as long as his/her allergic condition requires the school's considerations and management, even if the symptoms and other information remain unchanged. The physician should complete the Allergy Form with all details foreseen for the next 12 months, including possible changes in symptoms, treatments, and the instructions for considerations in school life. Exceptions apply when the medical conditions change significantly. For students with food allergy require special care in school meals and others, parents are requested to provide additional information in details, which will be used comprehensively along with the Allergy Form.

Conclusion

The management and guidance program using the Allergy Form just started in FY 2008, and schools and communities have not fully comprehended it yet. At present, it is considered to be in the dissemination period. The Guidelines describe the points when dealing with allergic diseases, including the storing of emergency medications at school (including EpiPen®) and hot-water shower for students with atopic dermatitis. The Guidelines are yet to be tested through the course of implementation at school, and problems may rise at actual scenes that must be discussed in the future. Nevertheless, the Guidelines have significant meaning as the first step towards a standard management system for allergic diseases at school.

As the next steps, activities such as preparing the Q&A will be important to promote better understanding among the public on how allergic diseases are to be managed in school life. The Committee at Japanese Society of School Health has finalized the Q&A at the end of FY2008, and it is supposed to be posted on their website shortly.

Children spend a large part of their time at school. In order to provide children a safe, secure, and healthy environment at school, parents, school staff, physicians, and the students themselves should share and utilize the information regarding the student's allergic diseases based on the medical evidence. I very much hope that the Allergy Form will be used efficiently for that purpose.

* The MEXT homepage [http://www.mext.go.jp]. The report is also available for download in PDF format [http://www.mext.go.jp/b_menu/houdou/19/04/07041301.htm (accessed as of May 25, 2010)] [in Japanese].

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