

May 12, 2005

Mail Stop 0306

John H. Jungbauer
Vice President, Finance and Chief Financial Officer
MedicalCV, Inc.
9725 South Robert Trail
Inner Grove Heights, MN 55077

Re: MedicalCV, Inc.
Registration Statement on Form SB-2
Filed April 29, 2005
File No. 333-114457

Dear Mr. Jungbauer:

We have reviewed your filing for issues related to the comment below. We anticipate at this time that no further review of your registration statement will be made other than a review of your response to this comment. Note that we may have further comment on these issues. All persons who are by statute responsible for the adequacy and accuracy of the filing are urged to be certain that all required information has been included.

Form S-3

Fee Table

1. Please revise footnote (1) to limit it to the transactions contemplated by Rule 416. The revised footnote should track the language of Rule 416 (a).

* * *

As appropriate, please amend your registration statement in response to these comments. You may wish to provide us with marked copies of the amendment to expedite our review. Please furnish a cover letter with your amendment that keys your responses to our comments and provides any requested supplemental information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your amendment and responses to our comments.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filings reviewed by the staff to be certain that they have provided all information investors require for an informed decision. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

Notwithstanding our comments, in the event the company requests acceleration of the effective date of the pending registration statement, it should furnish a letter, at the time of such request, acknowledging that:

- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- the company may not assert staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in connection with our review of your filing or in response to our comments on your filing.

We will consider a written request for acceleration of the effective date of the registration statement as a confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the securities specified in the above registration statement. We will act on the request and, pursuant to delegated authority, grant acceleration of the effective date.

We direct your attention to Rules 460 and 461 regarding requesting acceleration of a registration statement. Please allow adequate time after the filing of any amendment for further review before submitting a request for acceleration. Please provide this request at least two business days in advance of the requested effective date.

John H. Jungbauer
MedicalCV, Inc.
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You may contact Adélaja K. Heyliger at (202) 824-5082 or me at (202) 824-5697 with any questions.

Sincerely,

Russell Mancuso
Branch Chief

cc (via fax): Brett D. Anderson, Esq., Briggs and Morgan, P.A. 612.977.8650